312066 0262 8204 0

LIBRARY
OF THE
MASSACHUSETTS
AGRICULTURAL
COLLEGE

NO. 5275 DATE 11-1886

SOUF[illegible] Goodrich

S
74
W6W6
v.2

1856-60

AGRICULTURAL COLLEGE.

TRANSACTIONS

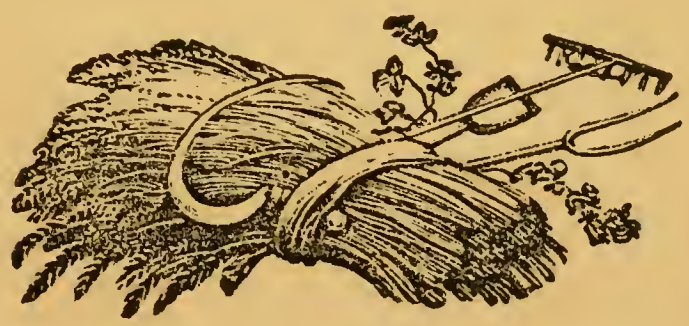
OF THE

WORCESTER NORTH

AGRICULTURAL SOCIETY,

FOR 1856.

PUBLISHED BY ORDER OF THE TRUSTEES.



FITCHBURG:
PRINTED BY E. & J. F. D. GARFIELD.
176 Main Street.

630.06
W89m 1856-60

TRANSACTIONS.

According to previous notice and arrangement, the Fourth Annual Exhibition of the Worcester North Agricultural Society, took place in the town of Fitchburg on Friday, the 19th day of Sept., 1856. Taken as a whole, this Exhibition was in advance of any of those previously held; and was exceedingly creditable to the Society, and to our not particularly favored locality. The show of Stock was unusually large and fine. There were present a large number of Bulls, in particular, representing all the prevailing bloods,—and a number of them in their purity.

The display of Fruits was not as extensive as formerly; but in the intrinsic value of the various varieties shown, it was far superior. The specimens of Apples showed the extensive depredations of insects which have so prevailed the past season. There was in fact, hardly a plate of perfect apples upon the tables. Pears fared better. There were to be found a larger variety than heretofore; and the individual specimens were uncommonly large and fair. Peaches in this locality were abundant,—but of Plums, the "Turk" seems to have appropriated the lion's share. There were hardly any to be found.

In the Mechanical department, the Exhibition was far behind the ability of the Society to bring out; and it is very much to be hoped that future shows will be honored by more of the productions of the skilful mechanics among us.

The weather during the day was propitious; and the various arrangements were well carried out. The first attraction was the trial of skill in the Plowing Match, a particular account of which will be found in the Report of the Committee having it in charge.

Next came the trial of working Oxen and Steers; and also the trial of Draught Horses.

Immediately after these exercises a procession was formed under the direction of Col. Edwin Upton as Chief Marshall, which marched to the Congregational Church for the purpose of listening to an address from Charles L. Flint, Esq., Secretary of the Board of Agriculture. The address consisted of a history of the formation of the Board, together with an account of its subsequent operations, showing in a very clear manner the necessity of its existence—its usefulness and importance to each and every reading and thinking Farmer of the State; and also setting forth the shallowness of the policy of the Legislature,—while granting an annual sum of upwards of $70,000 to sustain the Military interest,—in refusing less than one fourth part of this amount for the encouragement of the vastly more important interest of Agriculture, which lies at the very foundation, and in fact is the corner-stone of our prosperity.

At the close of the Address, which was listened to with marked attention throughout, the procession

re-formed and proceeded to the Fitchburg Hotel, where a dinner had been prepared. After satisfying the physical wants, very acceptable remarks were made in response to sentiments by the Hon. Simon Brown, of the "New England Farmer," Hon. John Brooks of Princeton, President of the Worcester Agricultural Society, Hon. Ivers Phillips, and others.

It was much to be regretted that by a misapprehension in regard to the day, the Society was deprived of the presence of Hon. B. V. French of Braintree, delegate from the Board of Agriculture.

At 4 o'clock, P. M., the Society held a meeting for the purpose of hearing the Reports from the various Committees; and thus closed the events of one of those festival days which have already done so much, and are destined to do still more, towards rendering the intelligent tiller of the soil a master of his profession, rather than its dependent slave.

REPORTS OF COMMITTEES.

BULLS AND BULL CALVES.

COMMITTEE.—Ezra Kendall, Sterling; Joseph Whitney, Sterling; Thomas Whitney, Shirley; Israel Everett, Princeton; David Parker, Gardner; S. P. Gibson, Ashby; S. M. Dole, Fitchburg.

Your Committtee found twenty-three of this description of stock duly entered for examination and premium; and they were considered a fine lot of animals, far exceeding any previous show of the kind at this place. They were there, from the sturdy full grown, down to the youngling, giving promise of future excellence, in fulfilling the objects of their several missions. From these we were to select such as were thought to be the best adapted for that purpose. We selected such animals as we considered best fitted for the propagation of all kinds of neat stock, judging from the shape and symmetry of animals, without regard to pedigree, and paying but little regard to the various breeds, either pure or mixed. Grade cattle seem to be best adapted to our New England keeping and climate; and especially those of the Durham and Devon mixture. The Alderny Bull presented by Dr. Field, of

Leominster, was a fine specimen of that kind of stock. But from the fact, that it has not yet been sufficiently proved, it was not considered best to award him a premium. Finally, your committee would recommend great and increasing care in the selection of breeding animals, as well as the same injunction in regard to the care and attention in the rearing. It is evident that the good work is in progress, from the improvement in the stock at this show, which we think superior to any heretofore exhibited.

There were twelve Bulls of more than two years old, entered for Premium; and without regard to pedigree but considering all other qualities, your Committee have awarded the following premiums:

To Sewall Richardson, of Princeton, the first premium of	$6,00
To Daniel Works and others, of Fitchburg, the second premium of	4,00
To Benjamin Wyman, of Westminster, the third premium of	2,00
To Nathan Danforth, of Princeton, for the best bull of one year and less than two,	5,00
To Martin Harris, of Phillipston, the second premium of	3,00
To Samuel C. Nash, of Princeton, the third premium of	2,00
To Artemas Merriam, of Westminster, for bull calves, over four months old, first premium of	4,00
To N. C. Day, of Lunenburg, second,	3,00
" Josiah Page, of Westminster, third,	2,00

E. KENDALL, *Chairman.*

TWO YEARS OLD HEIFERS.

COMMITTEE.—Leonard Burrage, Leominster; George O. Skinner, Princeton; Marshall White, Westminster; Sidney R. Wilder, Sterling; Antipas Maynard, Ashburnham; Levi Burr, Ashby; Benj. Safford, Fitchburg.

The Committee on Two Years Old Heifers have attended to their duty, and submit the following report. The whole number of heifers entered was fifteen—fourteen of them were present. The Committee considered them a very nice lot of heifers, and would have been glad to have had more premiums to award to the various competitors.

After mature examination the Committee have awarded the first premium of $4,00 to John Brooks, jr., of Princeton, for one of his three-fourths Ayrshire heifers.

The second premium of $3,00 was awarded to Wm. W. Watson, of Princeton, for his Durham heifer; weight, 1380 lbs.

The third premium of $2,00 was awarded to George Miles, of Westminster, for his Native speckled heifer.

The Committee noticed a nice heifer, owned by Jonas H. Temple, of Princeton; also two very fine heifers by Henry Boyles, of Princeton; and one handsome Hereford heifer, owned by Martin Harris, of Phillipston.

L. BURRAGE, *Chairman.*

MILCH COWS AND MILCH HEIFERS.

COMMITTEE.—J. T. Everett, Princeton; Harlow Skinner, Princeton; Charles Flagg, Sterling; Ephr'm Murdock, Winchendon; Geo. Chandler, Shirley; Isaac B. Woodward, Fitchburg; Josiah Sheldon, Fitchburg.

Having attended to the duty assigned them, your Committee submit the following award of premiums:

FOR MILCH COWS.

To George M. Gregory, of Princeton, the first premium of $6,00

To Alvah Crocker, of Fitchburg, the second premium of 5,00

To Benj. F. Proctor, of Fitchburg, the third premium of 4,00

FOR THREE YEARS OLD MILCH HEIFERS.

To Joseph P. Reed, of Princeton, the first premium of 5,00

To Nathan B. Reed, of Princeton, the second premium of 4,00

To W. W. Watson, of Princeton, the third premium of 3,00

To Joel Page, of Fitchburg, the fourth premium of 2,00

FOR TWO YEARS OLD MILCH HEIFERS.

To Ephraim Crocker, of Fitchburg, the first premium of 5,00

To Henry Boyles, of Princeton, the second premium of 4,00

For the Committee,

ISAAC B. WOODWARD.

George M. Gregory's Statement.

The Cow which I offer for premium is five years old; half Native, half Holderness. She dropped her last calf, April 18th; and gave 305 pounds of milk an average of 43 pounds and 5-7ths; and made 13 and 9-16ths pounds of butter, the first seven days of June; and gave, during the first seven days' of September, 230 pounds of milk; and made 10 and 10-16ths pounds of butter. Her keeping in winter was about half husks, straw and poor hay; the remainder good hay. From April 18th to June 7th, two quarts cob and corn-meal a day; nothing but pasturing close fed since, until August 20th,—then corn-fodder twice a day. She was taken three miles to a bull on the first day of June.

Alvah Crocker's Statement.

The cow which I offer for premium is 8 years old; 1-4 Durham, 3-4ths Native. In the latter part of May, all June, and until the 25th of July she gave 37 lbs. 6 oz. per day, average. The first 7 days in September, she gave 206 lbs. and 5 ounces, an average of 29 lbs. and 7 ounces per day.

Joseph P. Reed's Statement.

Princeton, Sept. 15th, 1856.

Gentlemen: The Heifer I offer for premium was three years old the 28th of last March. She calved early

in April; breed, Devon and Holderness. She averaged 32 1-4 pounds of milk a day the first week in June. The first week in September she averaged 29 pounds, and a small fraction a day. Her milk has been set alone, and been found to be of superior quality. Keeping, in June nothing but common pasture; in September, pasture and a small quantity of corn-fodder, once a day. Her dam won the Society's first premium in 1853, as the best 3 years old Milch Heifer. Said heifer has been driven one-half mile to pasture this season.

Nathan B. Reed's Statement.

Princeton, Sept. 15th, 1856.

Gentlemen: The Heifer I offer for premium was three years' old the 22d of last May: she calved the 15th of April; breed, Devon and Holderness; she averaged 25 1-2 pounds of milk a day, the first 7 days in June; the first week in September, she averaged 29 pounds of milk a day; her milk has not been churned separate, but has been set alone, and found to be of the best quality; her keeping in June was common pasture; in September the same pasture and corn-fodder once a day; she has been driven 1-2 mile per day to pasture this summer; her dam won the first prize offered by the Worcester North Agricultural Society in 1853, for the best Milch Cow.

Wm. W. Watson's Statement.

The Heifer I offer for premium is a three-year-old: breed, part Durham, Ayrshire and Devon; time of last calving, April 19th, 1856; time of next calving, March 27th, 1857; kept with ten cows; food, in summer good pasturing; drove a mile to pasture, night and morning; weight of milk first 7 days in June, 196 lbs. 4 ounces; the first 7 days in September, she gave 177 lbs. 4 oz; the first 7 days in June, made 12 1-4 lbs. of butter; the first 7 days in September, made 10 lbs. 10 ounces of butter.

Joel Page's Statement.

My three-years-old Heifer, Spot, which I offer for you to examine, calved May 4th, 1856; and is to calve April 19th, 1857: her calf when 4 weeks and 5 days old, weighed 27 pounds per quarter; the yield of her milk in 7 days, commencing June 7th, was 194 1-2 lbs; the first 7 days in September it was 137 lbs; her feed, when tried in June, was one quart of cob-meal per day, and pasture; in September, pasture and green-corn once a day.

Ephraim Crocker's Statement.

The Heifer which I offer, was 2 years old the 27th of last April; her breed is 1-4 Ayrshire, 1-4 Devonshire, and 1-2 Native. She gave the first week in June 191 1-4 lbs. milk; the first week in September, 142 lbs;

the second and third weeks in June, she made 14 lbs. of butter, besides selling 3 pints of milk each day, and some extra quarts at the same time.

Henry Boyles' Statement.

The 2 years-old Heifer I offer for premium, gave the first 7 days in July, (she not having calved in season to make the trial in June,) 161 lbs. of milk, from which was manufactured 6 lbs. and 2 ounces of butter. The first 7 days in September, she gave 131 lbs. of milk, from which was manufactured 5 lbs. and one ounce of butter. She was taken from the cow at about five weeks old, and was put on to skim milk a few weeks; since then she has had nothing but grass and hay, till the first of the present month; since then a little corn-fodder in addition.

YEARLING HEIFERS AND HEIFER CALVES.

Committee.—Samuel Osgood, Sterling; C. W. Bush, Gardner; J. W. Forbush, Westminster; Joseph Whitcomb, Princeton; Elisha Murdock, Winchendon; David Lowe, Fitchburg; Abel Marshall, Fitchburg.

The Committee on Yearling Heifers and Heifer Calves having attended to their duty, respectfully ask to submit the following report:

Your Committee find entered for premium 18 Yearling Heifers and 16 Heifer Calves, and they award premiums as follows, viz:

For the best Yearling Heifer, to W. W. Watson, of Princeton, the first premium of $3,00

For the second best, to Abel F. Adams, of Fitchburg, the second premium of 2,00

For the third best, to John Brooks, jr., of Princeton, the third premium of 1,00

For the best Heifer Calf, more than 4 months old, to John Brooks, jr., of Princeton, the first premium of 4,00

For the second best, to John Brooks, jr., of Princeton, the second premium of 3,00

For the third best, to Samuel Hayward, of Ashby, the third premium of 2,00

For the fourth best, to Samuel Hawes, of Fitchburg, the fourth premium of 1,00

Mr. J. M. Frost, of Ashburnham, presented a very fine calf, though a few days less than four months old, for which your Committee recommend a gratuity of 1,00

All which is submitted.

SAMUEL OSGOOD, *Chairman.*

WORKING OXEN.

Committee.—Solon Carter, Leominster; Joseph Davis, Templeton; J. W. Foster, Ashburnham; J. M. Stevenson, Sterling; Daniel Miles, Westminster; Daniel Putnam, Lunenburg; Henry Boyles, Princeton.

Your Committee on Working Oxen, submit the following report:

There were 14 Teams reported as competitors, all of which were upon the ground, but two; also, there was one yoke of 6 years old cattle belonging to the Town of Fitchburg, which were entered, simply for trial, and not for premium.

The Committee would say that all the Teams performed their task remarkably well; and had they it in their power, they would have awarded premiums to all; but are sorry to say they have no such power; and have to discriminate between the several teams, as hard as it is to make such discrimination; and in awarding the following premiums, they are not fully satisfied that they have not omitted to award premiums to some who are as much entitled to them as those to whom they have awarded them.

To Joel Page, of Fitchburg, the 1st premium of	$ 7,00
To N. B. Reed, of Princeton, the 2d premium of	6,00
To H. Boyles, of Princeton, the 3d premium of	5,00
To Josiah Page, of Westminster, the 4th pr'm of	4,00
To S. F. Towne, of Westminster, the 5th pr'm of	3,00
To J. P. Reed, of Princeton, the 6th premium of	2,00

The Committee would observe that the yoke of oxen entered by the town of Fitchburg for exhibition, is worthy of their especial notice; and would have been entitled to a premium, had they not been entered for exhibition alone. The manner in which they drew and backed their load, bespeaks the good training they had received.

I am directed by the Committee to say, that in their opinion the load of 4000 lbs. is too large, especially for

some of the smaller cattle; approaching almost to cruelty, to compel them to back so large loads up hill; and they are of the opinion that the training of cattle might be as well ascertained by lighter loads, as by loads of 4000 lbs. Your Committee hold to the doctrine, that "a merciful man is merciful to his beast;" and therefore have made the above suggestion, as to making their loads lighter; and would further recommend *as little whipping as can be got along with* and have the cattle obedient.

For the Committee,

JOSEPH DAVIS.

STEERS, STEER CALVES & TRAINED STEERS.

Committee.—Joseph Upton, Fitchburg; Moses Sawyer, 2d, Sterling; Nathan Danforth, Princeton; Samuel R. Damon, Ashby; Benj. Wyman, Westminster; Edward Bacon, jr., Westminster; Orange G. Cowee, Westminster.

The Committee on Steers, Steer Calves and Trained Steers, have attended to the duties assigned them, and report as follows:

There were 8 pairs of three-years-old Steers entered for premium.

The first premium of $4,00 we award to Samuel Shattuck, of Fitchburg, for his black steers; they were well matched, and well trained; and weighed 2420 lbs.

The second premium of $3,00 we award to Dan-

iel S. Eaton, of Fitchburg. His steers did their work easy and well; weight 2070 lbs.

The third premium of $2,00 was awarded to Nathan B. Reed, of Princeton. There were two other pairs on trial; one by W. W. Watson, of Princeton; heavy and well matched; weighing 2850 lbs.; but not being so well accustomed to the yoke, we thought the premiums belonged to the lighter cattle, as reported.

There were 5 pairs of two-years-old steers entered for premium; and we award to W. W. Watson the first premium of $3,00 for his Durham steers; well matched, and weighing 2380 lbs.

The second premium of $2,50 to Nathan Barrel, of Ashburnham, for his Devons; well matched, and weighing 2380 lbs.

The third premium of $2,00 was awarded to Thomas Billings, of Lunenburg; weight of his steers 1770 lbs.

There were 7 pairs of Yearling Steers entered. The first premium of $3,00 we award to Henry Boyles, of Princeton; his steers weighed 1445 lbs.

The second of $2,00 to Mandall G. Everett, of Princeton, for his 1-2 Devon, 1-2 Native steers; weighing 1365 lbs.

The third of $1,00 to Nathan S. Holmes, of Princeton, for his Native steers; weighing 1175 lbs. There were others well worthy of premiums in this class, but we had no more to bestow.

There were 5 pairs of steer calves entered, but your Committee were unable to find but three of them; and we award the first premium of $5,00 to W. W. Watson, of Princeton.

The second premium of $ 3,00 to Adonijah Barnes, of Westminster.

The third premium of $ 2,00 to Joel Page, of Fitchburg.

There were but 3 pairs of steers entered for the premiums offered on Trained Steers. We award the premium of $ 3,00 to Elisha G. Mirick, of Princeton, for his yearling steers; very well matched and trained, both in and out of the yoke.

Your Committee were gratified to observe so many nice steers of the different ages and breeds on the ground to-day. It shows a growing interest among the farmers of this society in raising good oxen, which we were very glad to see.

All of which is respectfully submitted by

JOSEPH UPTON, *Chairman.*

FAT CATTLE.

Committee.—John Brooks, Princeton; Ephraim Turner, Phillipston; John Minot, Westminster; John May, Sterling; J. G. Woodward, Ashburnham; Asaph Wood, Gardner; Francis Buttrick, Jr., Fitchburg.

The Committee find entered for premium the following cattle, viz:—five fat oxen, two three-years-old steers, and three cows; and have awarded premiums as follows:

To W. W. Watson, of Princeton, for his best fat ox, weighing 2085 lbs., four-years-old, the first premium of $8,00

To W. W. Watson, of Princeton, for his 4 years old ox, weight 1820 lbs., the 2nd premium of 5,00

To W. W. Watson, of Princeton, for his yellow ox; 5 years old, the third premium of 3,00

To Jonas H. Temple, of Princeton, for the best fat cow, 10 years old, weighing 1370 lbs., the first premium, 6,00

To W. W. Watson, of Princeton, for the second best fat cow, 2d premium, 3,00

To Nathan Danforth, of Princeton, for the third best fat cow; 5 years old, weighing 1400 lbs., 3d premium, 2,00

To W. W. Watson, of Princeton, for the best 3 years old steer, the first premium of 6,00

To W. W. Watson, of Princeton, for the 2d best 3 years old steer, the second premium of 4,00

All of which is respectfully submitted.

EPHRAIM TURNER, for the Committee.

SWINE OVER EIGHT MONTHS OLD.

Committee.—C. H. B. Snow, Fitchburg; Thomas Damon, Westminster; Joseph M. Stuart, Princeton; Alfred Whitmore, Ashburnham; Elliot Wood, Fitchburg; C. W. Jaquith, Fitchburg; Levi Kendall, Fitchburg.

The Committee on Swine over Eight Months Old, submit the following report:

Ever since the institution of those annual festivities, known as Agricultural Fairs or Cattle Shows, in the reports of the several committees to whom the animal

department is assigned, special attention and honor have always been given to the Hog. While the ox, the horse, the sheep, and the other varieties of the animal kingdom are dismissed with a brief notice, or if commented upon at any length, solely discussed with reference to their practicable and serviceable qualities, a higher flight is expected from the Chairman of the Committee upon Swine; and he is permitted, nay, even expected to borrow from history, poetry and romance, whatever may be best fitted to dignify and embellish his subject. It is expected that poetical justice shall be done the Hog on such occasions; and that he shall be vindicated from the ignominy and unjust reproach which the vulgar and unenlightened are sometimes wont to cast upon him; and that he shall be exhibited in the full light of his many admirable qualities and virtues.

Nor, indeed, if we reflect upon the history of the Hog, and consider the important part which he has played at different times upon the stage of the world's action, should these tokens of special honor be wondered at. Under the Mosaic dispensation, he was specially exempted from the ignominious lot to which the rest of the animal kingdom was subjected; and while the ox, the sheep, the horse, and their kindred varieties were forced to minister to the comfort and support of man, the Hog in luxurious and honorable ease, attained the summit of felicity and years; and brought a long and happy life to a natural and befitting close. It is true that the great law giver, to whose tenderness the Hog was indebted for this great immunity, cunningly clothed his favor under the garb of an ex-communication or ban, shrewdly pretending that the animal is unclean;

but by this humane device the knowing ones of the present age, are in no wise deceived; and beneath it recognize the tender regard, and sympathetic appreciation by which he was animated.

At the present day, indeed, the Hog is found too indispensible to the comfort and happiness of mankind to be suffered to remain in that entire immunity from all the duties and responsibilities of life, that he enjoyed under the Jewish dispensation; but he is selecled peculiarly from all other animals to be the recepient of the favor, and domestic intimacy of man. The object of the tenderest solicitude from his earliest age he is carefully fed, housed, and cared for; and no other return sought, but that he shall thrive and wax fat. None of the ills of life molest him; he fares sumptuously every day at no expense to him; no curtain lectures invade his repose—no duns harass him—no pertinacious subscription papers assail his purse and peace of mind; he pays no taxes—he never heard of lawyers—he knows no doctor's bills—he does no work—he is never anxious about his rising family—in short, nothing disturbs the placid and equable tenor of his existence. By the laws of the land he is peculiarly set apart and guarded; and it was one of the earliest statutory achievements of our forefathers to enact that his person should be inviolate from attatchment; or, in other words, that he should be privileged from arrest for debt—a favor extended only to Hogs and members of Congress.

The only return that is asked for all these favors is that when he has attained the amplest majesty of his fat—when all the elements of swine-hood have met and done their perfect work—when he has expanded and

matured; and the whole measure of his existence is fully and artistically rounded up, that then he shall suffer himself to be translated to a high and noble sphere of usefulness—undergo a gentle apotheosis; and consecrate himself to the great and benificent work of cheering the heart and strengthening the limbs of his benefactor—man.

So much has been said of the disposition and temper of the Hog, and it has been made the subject of such various and scientific research, that but little can be added to it. His disposition is firm, and by illiberal persons sometimes called obstinate. He will not act upon compulsion; and before he takes a step at another's dictation, he generally wants to know the reason for it. His temper is quick, but generous; and although he bristles up in quick resentment of a wrong, he bears no malice, nor long harbors a resentful thought. In smaller matters of etiquette he is somewhat neglectful. Nor in satisfying the cravings of his appetite, does he always attend strictly to the nicer rules of table custom. This indeed is one of his chiefer failings; but his rudeness on such occasions never reaches such a point as would be deemed remarkable, or worthy of notice if it occurred among the travelling public of our steamboats or hotels.

His intellect is subtle; and his investigations are pro found. He is more of a mathematician, than versed in the elegant departments of literature; and can "extract a root" with a swift expertness that could only be equalled by a Newton or La-Place. He has often distinguished himself by his literary achievements,—so much so that at various times he hath been called by

pre-eminence, the "learned pig;" but many two-legged competitors upon the same course having worthily achieved and worn the same title, he hath of late relinquished it in disgust.

He is an economist of the strictest school; and hath the wonderful alchemy of translating the basest substance into delicious pork. He saves everything "but his bacon," which necessity, not his will, prevents him from doing. Although not actively engaged in politics, he hath always been noted for his devotion to *free-soil*; and indeed may be called a Free-soiler from the start.

In short, in him hath nature so admirably and rarely compounded her choicest faculties, that she may stand up and worthily proclaim her perfect work.

To descend from generals to particulars, but four entries were made in the department of this Committee. A fine boar was presented by Nelson Adams; but not having been entered, it could not be considered by the Committee in their distribution of premiums. The prevailing breed was the Suffolk; and most of them nearly full-blooded. We have awarded the prizes as follows:

To Samuel M. Dole, of Fitchburg, for best Boar more than 1 year old, the first premium of $4,00

To Jabez Fisher, of Fitchburg, the second premium of 3,00

To James Pierce, of Westminster, for the best Boar, less than 1 year old, the first premium of 2,00

To Isaac B. Woodward, of Fitchburg, for best Breeding Sow, the first premium of 3,00

All which is respectfully submitted.

C. H. B. SNOW, *Chairman.*

SWINE, LESS THAN EIGHT MONTHS OLD.

COMMITTEE. — Joel Merriam, Jr., Westminster; George Miles, Westminster; Handel Winship, Westminster; Paul Gates, Ashby; Edwin D. Works, Ashburnham; John W. Piper, Ashby; Daniel S. Eaton, Fitchburg.

The Commitee on Swine less than Eight Months Old, have attended to their duty, and would submit the following report:

It is a fact worthy of remark, that those animals which are most essential to the comfort of man, have been most widely diffused by a kind Providence. Swine must be ranked among these, for they are found in great numbers in all parts of the world. They are among the most profitable of all domestic animals when rightly managed. But your Committee regret that there were so few for exhibition to-day. There were three lots of four each; and we have awarded the first premium of $2,00 to Joseph Upton, of Fitchburg, for the best weaned pigs; and the second of $1,50 to James Pierce, of Westminster, for the second best lot; and we made no award of the third, for we did not think the third lot worthy.

There were three tip-top pigs entered by George Miles, of Westminster; and in the absence of any that were fatter, we have awarded the second premium of $2,00, and the third premium of $1,00, to him for the best pigs, less than 8 months old. We have not made any award of the first premium for fat pigs, because we thought none worthy. We hope there may be an extra effort made another year to increase the

number of swine for exhibition, as this is one of the most interesting features of a good show. If the number of swine here to-day is a fair specimen for numbers of what there are in the north part of Worcester County, we may count on pork being high this fall.

All which is respectfully submitted.

JOEL MERRIAM, for the Committee.

HORSES.

COMMITTEE.—Silas Hale, Royalston; S. W. A. Stevens, Gardner; George Kendall, Sterling; S. J. Burpee, Princeton; J. K. Going, Shirley; Wm. W. Comee, Fitchburg; James P. Putnam, Fitchburg.

The Committee on Horses make the following report:

The first premium of $5,00 is awarded to J. & O. M. Merriam, of Westminster, for best stud horse. The second premium of $3,00 is awarded to Daniel Works, of Fitchburg. The Committee say that Mr. Merrick Wallace, of Ashburnham, exhibited as fine a stud as there was on the ground; but as it was not entered in time, according to the rules, is not entitled to a premium; but the Committee recommend that he be paid three dollars, as a gratuity. The Committee also recommend that a gratuity of $2,00 be paid J. M. Frost, of Ashburnham, for exhibiting a fine 4 years old stud.

DRAFT HORSES.

The first premium of $ 5,00 is awarded to Thomas Upton, of Fitchburg. Second premium of $ 3,00 is awarded to George Miles, of Westminster.

BREEDING MARES.

The first premium of $ 5,00 is awarded to Ohio Whitney, of Ashburnham. Second premium of $ 3,00 is awarded to Wm. S. Downe, of Fitchburg.

SIDNEY D. WILLIS, for the Com.

COLTS.

Committee. — Nathaniel Wood, Fitchburg; John Brooks, Jr., Princeton; Amory Davidson, Sterling; Samuel H. Sprague, Westminster; S. F. Atherton, Fitchburg; Leonard Day, Fitchburg; Leander P. Comee, Fitchburg.

The Committee on Colts, with its full compliment, with one exception, have attended to their duty; and beg leave to report:

The whole number of Colts entered for premium was 24; but upon examination, the Committee were not able to find but 20 upon which they were requested to pass judgment. A colt entered by Solon Carter, of Leominster, of 3 years old; one of same age by Oliver Wellington, of Ashby; a two-years-old colt entered by Enoch Whitmore, of Ashburnham; and a colt between 3 and 6 months old, entered by Samuel Hawes, of Fitchburg, were not to be found by the Committee; and of

course they remain in profound ignorance of their merits and excellences.

Those of the Committee who had the honor last year of serving upon the same Board, are of opinion that the entries of three, two and one year old colts this year were not quite equal with those of last y ear, although there were some fine colts exhibited; the colts from 3 to 6 months old came up fully equal, and probably superior to any former exhibition.

After mature consideration, the Committee award the following premiums:

For the best 3 years old colt, to Luther Hodgman, of Ashby, the first premium of	$ 4,00
For the second best 3 years old colt, to Newell Marble, of Ashburnham, the second premium of	3,00
For the best 2 years old colt, to Henry B. Jones, of Townsend, the first premium of	4,00
For the second best 2 years old colt, to Allen B. Wood, of Westminster, the second premium of	3,00
For the best yearling colt, to J. Lamb, of Athol, the first premium of	3,00
For the second best yearling colt, to Charles Nicholson, of Leominster, the second premium of	2,00
For the best colt, 3 to 6 months old, to Gardner Merriam, of Leominster, the first premium of	3,00

For the second best colt, 3 to 6 months old, to S. F. Towne, of Westminster, the second premium of 2,00

All which is respectfully submitted.

NATHANIEL WOOD, *Chairman.*

SHEEP.

Committee.—Amasa Norcross, Fitchburg; Aaron Wood, Westminster; Thorley Collester, Gardner; Mark Wilder, Princeton; Joseph Smith, Fitchburg.

The whole number of entries were five. No flocks of sheep were on exhibition. The Committee are constrained to say that the decline of interest in this department of the annual exhibition should awaken the attention of farmers, and lead the Society to enlarge the premiums on this important branch of stock.

We award to J. G. Woodward, of Ashburnham, for the best Cosset Buck, the first premium of $2,00.

To John Smith, of Fitchburg, for his Cosset Buck, the second premium of $1,00. We also recommend a gratuity of $1,00 to Addison Howe, of Ashburnham, for his Cosset Sheep; and to Nathan Danforth, of Princeton, for his Cosset, $1,00.

Respectfully submitted.

AMASA NORCROSS, *Chairman.*

POULTRY, AND EXPERIMENTS IN KEEPING POULTRY.

COMMITTEE.—L. H. Bradford, Fitchburg; John W. Hill, Gardner; John C. Miller, Westminster; John Roper, Princeton; Nathan Upham, Fitchburg.

The Committee on Poultry, and experiments in keeping the same, would respectfully report:

That the fowls on exhibition to-day, were comprised in some eighteen lots, varying from 6 to 20 in each which, as a whole, were very creditable to the Society, and the occasion which calls us together. We found some difficulty in deciding, as all were so worthy of premiums; but being obliged to do so on their own merits—not having been advised by the exhibition as was anticipated, in regard to their experience in raising poultry—we have awarded as follows:

To Benj. Safford, of Fitchburg, for best lot of turkies,	$2,00
To James McIntire, of Fitchburg, for second best lot of turkies,	1,00
To J. W. Smith, of Fitchburg, for third best lot of turkies,	,50
To J. W. Smith, of Fitchburg, for 6 best dung-hill fowls,	2,00
To Benj. Safford, of Fitchburg, for the 6 second best dung-hill fowls,	1,00
To Addison Howe, of Ashburnham, for third best dung-hill fowls,	,50
To Charles Flagg, of Sterling, for six best pullets,	1,00
To J. W. Smith, of Fitchburg, for bantam, a gratuity of	,50

To Master A. Griswold, of Fitchburg, for hen and 15 chickens, in 2 broods, a gratuity of ,50

L. H. BRADFORD, for the Committee.

PLOWING.

Committee.—Ivers Phillips,and Abel Marshall, of Fitchburg; Luke Wellington, Ashby; Joseph P. Heywood, Sterling; Ohio Whitney, jr., Ashburnham; Seth Heywood, Gardner; Wilkes Roper, Princeton.

The plowing match was on a piece of land belonging to Mr. Daniel Works, in the westerly part of Fitchburg. The soil is of excellent quality; moist and stiff; and rocky enough to test the skill of plowmen. Apparently, the land had not been cultivated more than six or seven inches deep. The sub-soil is stiff, inclined to clay; and quite rocky. It was layed out in lands twelve rods long, and eighteen feet wide. The lands were pretty uniform; but some of them were more rocky than others.

Sixteen entries were made; but only fourteen teams appeared upon the ground.

There were many circumstances which make it extremely difficult for the Committee to decide who best deserved the premiums placed at our disposal. Some plowed with two yoke of oxen—some with one yoke of oxen and a horse; and some with one yoke of oxen. Your Committee directed the competitors to guage their plows at seven inches, that being the depth

at which the owner of the land had indicated that he would like to have the plowing done; but upon examination it was found that the depth at which the land was plowed, varied from 7 to 10 inches. Six kinds of plows were used. The time of accomplishing the work, varied from 24 to 50 minutes. All these circumstances and many others, had to be taken into consideration by your Committee, in awarding the premiums. The plowing was all good; and with one or two exceptions, it was excellent. We had difficulty in determining who was most entitled to the first premium; and as we went on through the list the difficulty increased; and when our premiums were exhausted, we found that others were apparently as much entitled to them as some to whom we had awarded. We have endeavored to give to every varied circumstance its due weight, discriminating as well as we could, to act with entire impartiality; and have awarded the premiums. The question has been not so much who was entitled to the several premiums, as who *can* we leave off and be just.

Israel Everett, of Princeton, entered one yoke of oxen five years old; and a double Michigan swivel plow, the only one on the ground; and the plowing was done by his son Mendall G. Everett, (a minor.) He plowed 18 furrows, eight inches deep, in 36 minutes, and did it well.

We have awarded the first premium of $ 10,00 to Israel Everett; and a gratuity of $ 5,00 to Mendall G. Everett.

Mr. Alonzo P. Goodridge, of Fitchburg, entered one yoke of oxen seven and eight years old; and Ruggles, Nourse & Mason's eagle plow; number 73 1-2; and it

was managed by his son, Edwin Goodridge, (a minor,) who plowed 18 furrows, 7 1-2 inches deep, in 27 minutes.

We have awarded the second premium of $ 9,00 to Alonzo P. Goodridge; and a gratuity of $4,50 to Edwin Goodridge.

Messrs. N. B. & J. P. Reed, of Princeton, entered two pairs of oxen, four and five years old, and a double Michigan plow. They plowed sixteen furrows, nine inches deep, in thirty minutes. One of them managed the plow, and the other drove the team; and we have awarded to Messrs. N. B. & J. P. Reed the Society's third premium of $8,00.

Mr. John Brooks, Jr., of Princeton, entered one pair of oxen, seven years old, and Ruggles, Nourse & Mason's No. 73 1-2 eagle plow, and plowed sixteen furrows, seven inches deep, in twenty-six minutes; and we awarded him the fourth premium of $6,00.

Mr. Joel Page, of Fitchburg, entered one pair of oxen four years old, one horse, and a double Michigan plow. Mr. Page managed the plow himself and drove his team, with a boy to ride the horse. He plowed sixteen furrows, eight inches deep, in twenty-four minutes; and we have awarded him the fifth premium, of $4,00.

Mr. Samuel Osgood, of Sterling, entered two pairs of oxen, four years old, and a Ruggles, Nourse & Mason's eagle plow, No. 73 1-2. The driving and plowing was done by his son and another young man, both minors.—They plowed fifteen furrows, seven and one-half inches deep, in twenty-five minutes, and we have awarded to Mr. Samuel Osgood the sixth premium of $3,00, and to his minor son and Chas. Flagg, the plow-man, $1,50, as a gratuity.

Mr. Asa Sawyer, of Fitchburg, entered one pair of oxen, six years old, and a horse, and a double Michigan plow. The plowing was managed by two of his sons; Alvin Sawyer, who held the plow, being only seventeen years old. They plowed eighteen furrows, nine inches deep, in forty-two minutes; and we have awarded to Mr. Asa Sawyer the seventh and last premium of $2,00, and to Alvin Sawyer a gratuity of $1,00.

Your committee are unwilling to close this report without making honorable mention of other competitors who richly deserve premiums, if we had them to bestow. Among these, are Mr. Henry Boyles, of Princeton, who performed his work in forty-one minutes; and Mr. Chas. Flagg, of Sterling, who plowed his land in forty-four minutes. Both of them did their work well, and in consideration of the distance which they have travelled, we recommend a gratuity to each of them, of $3,00.

Mr. Joseph Upton, of Fitchburg, plowed with a yoke of oxen and a horse; himself being plowman and driver of the whole team. He did his work in thirty-five minutes; and Mr. Patrick Dinan plowed a land in fifty minutes, with one yoke of oxen; and they both did their work remarkably well.

The Town of Fitchburg had two yoke of oxen on the ground, under the management of Mr. Farwell, the superintendent of the town farm, and he plowed a land, with a double Michigan plow, in an excellent manner, ten inches deep, in twenty-four minutes; and if he had been a competitor for a premium he would probably have received one.

All of which is respectfully submitted by your Committee.

IVERS PHILLIPS, *Chairman.*

TOWN TEAMS.

COMMITTEE.—A. H. Bullock, Worcester; Augustus Morse, Leominster; Levi Heywood, Gardner; Gilman Day, Templeton; Ohio Whitney, Ashburnham; Samuel C. Nash, Princeton; Joseph Raymond, Royalston; Wm. D. Peck, Sterling; Benj. Wallis, Ashby; Franklin Wyman, Westminster; Thomas Billings, Lunenburg; Israel Longley, Shirley; Levi Downe, Fitchburg; Chedorlaomer Marshall, Fitchburg; Joel Page, Fitchburg.

The Committee to whom was referred the inspection of Town Teams, have attended to their duty, and would respectfully report:

Your Committee have had two Town Teams presented to them, one from Fitchburg, and one from Sterling; and after careful examination and thorough inspection, found that both Teams were fine specimens of working oxen.

Fitchburg presented twenty-two yoke of large, lusty cattle, which are well worthy of high commendation, and show that the farmers of Fitchburg well know how to make money by having oxen that can do a day's work in a day.

Sterling presented to the Committee twenty-six yoke of young, thrifty, working oxen. An honor to any farming town is such a team. They looked like good farmers' oxen, and showed that they did not plow the soil in vain, but received their full share of the fruits thereof.

Your Committee would have been happy to have seen more teams, for they think nothing speaks better for a farming town than to be able to show a good lusty team of working oxen, and hope in future that other towns may come here with their teams.

The Committee do not deem it their duty to award

a premium to a Town Team unless it be worthy of it; and finding that both Teams which they have inspected are entitled to a premium, they have made their verdict as follows:

To Sterling for best Town Team, the first premium of $20,00

To Fitchburg, for the second best Town Team, the second premium of $10,00

All of which is respectfully submitted.

AUGUSTUS MORSE, for the Com.

GRAIN.

Committee.—Isaac B. Woodward, Moses M. Gage, Joel Page, James P. Putnam, Thomas S. Eaton, of Fitchburg; Luke Wellington, of Ashby; and Benjamin Wyman, of Westminster.

In the Rules of the Trustees offering the premiums on the several kinds of Grain, including White Beans and Cabbages, it reads, "For the most profitable crop;" and with Grain it must weigh a certain amount to the rod or bushel, to entitle the owner to compete for a premium.

First on the list is Corn. For the best acre of any variety, the product to be not less than 30 lbs. to the square rod at harvesting.

There were thirteen acres entered by twelve competitors, Mr. Watson, of Princeton, entering two.

Your committee visited nine pieces of Corn, in the

following towns: Fitchburg, four; Leominster, one; Princeton, three; Westminster, one. The other four acres were withdrawn.

One of the pieces visited by your committee was found to be too light to compete,—that is, it did not weigh 30 lbs. to the rod.

Your committee was at no trouble in finding the fields, although situated some twelve miles apart; but not so with some of the statements in regard to the cultivation and expense of the crop; and it is hoped that next year, the Trustees will adopt a different course from the one pursued this year.*

CORN.

The first premium of $6,00, for the most profitable acre of corn, we award to the town of Fitchburg.—Samuel Farwell, 2d, Master. Mr. Farwell had twenty-three hills to the rod, and it weighed 47½ lbs. The seed corn came from the "Poor Farm" in Sterling.

The second premium, of $4,00, we award to John

---

* The subject here alluded to is one that has always been a "stumbling block" in the way of gaining information concerning premium crops It is frequently with difficulty that statements can be procured at all, and often their contentsare valueless to the Society when obtained. This must be the excuse for the non-appearance of some statements in this volume in connection with the awards.

In order to remedy this difficulty, the Society at its Annual Meeting, December 3d, 1856, adopted a form, containing questions to be answered by competitors, and unless the questions are all properly answered and returned to the Secretary, within a specified time, the crop will be considered as having been withdrawn, and cannot be entitled to a premium. This mode, it is hoped, will insure promptness, and entire uniformity in all statements in the future. [Sec'y.]

Brooks, Jr., of Princeton. He had twenty-eight hills to the rod, and it weighed 42¾ lbs., and was called "King Phillip" corn.

The third premium, of $3,00, we award to Edward Smith, of Fitchburg. He had twenty-five hills to the rod, and it weighed 34¾ lbs.

The fourth premium, of $2,00, we award to W. W. Watson, of Princeton, on his yellow corn. He had twenty-four hills to the rod, and it weighed 36 lbs.

We recommend a gratuity of $2,00 to Solon Carter, Esq., of Leominster, for his excellent crop of corn, and *very* excellent statement. This can be done without infringing upon the funds of the Society, as we have $10,00 left which are unawarded, for want of competitors.

We would here state that had not Mr. Wyman, of Westminster, been one of the committee, he would most likely have received either a premium or a gratuity.

WHEAT.

We award to W. W. Watson, of Princeton, the first premium of $4,00, he being the only competitor.

RYE.

There were five entries. We award the first premium of $3,00, to the Town of Fitchburg. Sam'l Farwell, 2d, Master.

The second premium of $2,00, we award to Jeremiah Andrews, of Fitchburg.

BARLEY.

There were two premiums offered, of $3,00 and $2,00. Only one person entered, and he withdrew.

OATS.

There were four lots entered. We award the first premium of $3,00, to John Brooks, Jr., of Princeton.

The second premium of $2,00, to W. W. Watson, of Princeton.

WHITE BEANS.

For the most profitable eighth of an acre of white beans, we award to A. P. Goodridge, of Fitchburg, the second premium of $1,00.

Cabbages.—None were entered.

All of which is respectfully submitted.

ISAAC B. WOODWARD, *Chairman.*

Statement of John Brooks, Jr.

The field of corn entered by me for a premium, was measured by E. Osgood, and contains one acre and twenty-four rods. It inclines to the west; and it is fifteen years since it was plowed up. Soil, clayey loam. This spring, about the middle of May, fifteen loads of manure, (one-third meadow muck, two-thirds cow dung) were spread upon it, and plowed in with a double side-hill plow.

About the first of June, 250 lbs. of guano was sown upon it and harrowed in. Furrowed out one way—50 lbs. guano mixed with 25 bush. muck, put in the hill, one large handful each. The furrows were three

and one-half feet apart; hills in the furrows three feet. Planted with King Phillip corn, six kernels in a hill.

EXPENSES.

Interest on land,	$3,00
Taxes,	30
15 loads manure,	15,00
250 lbs. guano, broadcast,	7,50
50 lbs. guano, in the hill,	1,50
Breaking up, 1½ days,	5,25
Harrowing,	1,50
Furrowing out,	50
Planting,	3,00
Seed corn,	,50
Plowing and hoeing twice,	10,00
Cutting and binding stalks,	1,50
	$49,55
Deduct one-half manure unexhausted,	12,00
	$37,55

I allow the value of the stalks and butts to offset the expense of harvesting and husking.

SOLON CARTER'S STATEMENT.

The field of Corn I offer for the Society's premium, was cultivated as follows:

The field had been in grass for seven years. It was plowed in August, directly after the hay crop was re-

moved. Late in November I spread about twelve loads of manure to the acre, from the barn-cellar, and cross-plowed it. In April it was harrowed to check the grass and weeds. May 6, I carted fifteen loads of manure to the acre, which was spread and plowed in the two following days. The next day it began to rain, and continued, almost without intermission, for three days.—This left the ground so hard, I thought it best to plow again, which I did before planting, (thus making four times plowing.) It was then bushed to smooth the top of the furrows; then marked three and one-half feet each way, with a machine made for the purpose, marking two rows at a time, (the third following the last row.) It was then planted, with Randall & Jones' double corn planter, on the 19th of May. At the first hoeing I went through the field both ways, with a light sharp harrow of nine teeth. Immediately after this hoeing I went through one way with the *horse-hoe*—and with the corn planter planted beans midway between the hills. When the beans were up, I went through again with the *horse-hoe*, following with the hand hoe. After haying, I went again through the field with the horse-hoe, thus destroying all weeds and leaving the surface light and level.

EXPENSE OF CULTIVATING.

First plowing,	$5,00
Twelve loads of manure,	24,00
Second plowing,	2,50
Fifteen loads of manure,	30,00
Third plowing,	2,50
Fourth plowing,	2,50
Seed, 37, marking and planting, 75,	1,12

First hoeing,	2,50
Second hoeing,	3,50
Third hoeing,	2,00
(One-half at least of the last two charges should be placed to the account of beans.)	
Cutting and securing stalks,	2,00
Harvesting corn,	8,00
	$85,62

You can tell what I raised, and perhaps the benefit the labor and manure will be to the after crops.

There is a difference of opinion and practice among our farmers as to the best way of securing the corn crop. Some hold to the old way of cutting stalks, &c.; some think it better to cut at the root and stook, and others think that *all* should stand till it is fit to harvest.

I am trying a hundred hills in each of the above ways, and if desired, can give you, at some future time, the result of the trial.*

* Mr. Carter, under date of Dec. 20th, gives the result as follows: Each of the three lots contained four rows, of twenty-four hills each; in all, ninety-six hills. Lot No. 1 was cut at the ground, and stooked, Sept. 24th. Lot No. 2 had the top stalks cut in the usual way, at the same date. Lot No. 3 was left standing whole until Oct. 29th, when each of the lots was harvested and husked. The ears were then spread about six inches deep, and remained until Dec. 20th. At this date the whole was shelled, and the result is as follows:

	Lot No. 1. Cut up whole, and stooked Sept. 24.	Lot No. 2. Top stalks cut Sept. 24.	Lot No. 3. Left standing whole.
Oct. 29.—Harvested. Weight,	143 lbs.	155½ lbs.	154 lbs.
Dec. 20.—Shelled. Corn weighed	111 lbs.	131 lbs.	125 lbs.
Cobs weighed,	16 lbs.	18 lbs.	17½ lbs.
Total,	127 lbs.	149 lbs.	142½ lbs.
Shrinkage,	16 lbs.	6½ lbs.	11½ lbs.
Per cent. of shrinkage,	13	4	8

"It appears by this experiment, that the corn which was stooked

ROOT CROPS.

COMMITTEE.—William G. Wyman, Levi Kendall, Abel Marshall, William S. Downe, and Daniel S. Eaton, of Fitchburg; Solon Carter, of Leominster; and Francis W. Wright of Ashby.

The Committee on Root Crops, and Experiments in Cultivation, were very much disappointed in not finding more crops entered for premiums. Of those not finally withdrawn, there were but, two of potatoes, three of carrots, one of sugar beet, two of ruta-baga, and one of English turnip. Of onions, and mangel wurtzel, there were none; and there were no entries of experiments in cultivation.

After a careful examination of the crops entered, and such statements as we have received, we award the following premiums:

To W. W. Watson, of Princeton, for the most profitable half of an acre of potatoes, the first premium of $3,00

To W. W. Watson, for the most profitable eighth of an acre of carrots, the first premium of $3,00

To Isaac B. Woodward, of Fitchburg, the second premium on carrots of $2,00

To W. W. Watson, for his crop of sugar beet, the first premium of $2,00

To John Brooks, Jr., of Princeton, for the most profitable eighth of an acre of ruta-baga, the first premium of $2,00

---

weighed *least* at harvesting, and *shrunk most* before shelling; while that which had the top stalks cut, weighed *most* at harvesting, and *shrunk least* before shelling."

To Abel Marshall of Fitchburg, for his crop of ruta-baga, the secend premium of $1,00

To John Brooks, Jr., for the most profitable eighth of an acre of English turnips, the first premium of $2,00

It is a source of regret that root crops are not more generally raised by the farmers of our association.—When we notice the ease, the facility, the comparatively small expense of labor, with which large quantities of some of them are obtained; as the ruta-baga, sugar-beet, and several varieties of English turnip; and take into consideration the real, actual value of these crops as food for stock, we cannot but express the hope that more will give attention to the subject in future. Let our brother farmers try the experiment another year, on a small scale, if they please, but try it thoroughly, and faithfully; and make known the result.

The comparative ease with which onions are raised, when proper care is exercised, and the high price and ready sale which the article commands in our market, render it a wonder that this crop is not more extensively cultivated in this vicinity.

It is ascertained to be a fact that large quantities have been brought into town this year from the vicinity of Boston, for the supply of our own market, at prices which would amply repay our farmers for its cultivation. We trust that some of them will take the hint, and supply the deficiency in future, and so retain among us the funds, which for that article, at present, go abroad.

We are happy to notice that carrots are more extensively cultivated, and more generally appreciated than many other root crops.

It would have afforded us great pleasure to have had a variety of experiments in cultivation entered for our examination. There are so many questions still remaining unsettled in regard to the best, and most profitable methods of cultivating different crops; the adaptation of soil, location, manure, modes of culture, &c., to the various articles of produce, that it seems extremely desirable that our own people in our own midst, should try a great variety of experiments, noting with minuteness and accuracy all the various items connected therewith, and making public the results.

We trust, therefore, that the Society will not be discouraged by this failure, but will encourage its members in this direction, by continued offers of liberal premiums to successful experimentors.

In reference to the potatoe crop, for instance, let experiments be tried testing the questions of the variety, quality and size of seed; the soil, manure, time of planting, mode of culture, &c., best adapted to the successful growth of this crop.

Permit us to say, in this connection, that from experiments tried without our association, which have fallen under our observation, we highly approve the cultivation of the Davis seedling potatoe, on light, moderately dry soil, with whatever manure may be used, spread, and thoroughly intermixed with the soil; seed of medium size, planted as early as convenient. If the soil be new, or have not been cultivated for many years previous, all the better.

In behalf of the Committee,

W. G. WYMAN, *Chairman.*

Isaac B. Woodward's Statement.

The eighth of an acre of carrots, which I offer for the Society's premiums, was, two years ago, planted with potatoes, on green sward; manured with guano and plaster. Last year it was sown with carrots, which grew all over the top of the ground, but seemed afraid of the sub-soil. It was manured moderately with green manure. This year it was manured with one cord of green manure. We plowed the ground twice, harrowed it down, raked it smooth, and sowed it with a seed-sower, about the 20th of May.

The rows are about fifteen inches apart. I think they were sowed somewhat too thick, and in consequence of which the roots are small, but very handsome. They were hoed twice in June, and wed out after haying.—We used the wheel-hoe for weeding.

They weighed 317½ lbs. on the rod, which is 6350 lbs. on the eighth, and 50800 lbs. to the acre.

EXPENSES OF CROP.

One cord of manure,	$5,00
Plowing twice,	1,00
Raking and sowing,	1,00
Hoeing and weeding three times,	3,00
Harvesting,	3,00
	13,00
The value of the crop, at $10,00 per ton is,	$31,75
Expense of crop,	13,00
Profit,	$18,75

John Brooks, Jr.'s Statement.

The piece of land that I enter for a premium, on rutabagas, contains one-eighth of an acre. Last year it was cropped with carrots; two loads of manure were put upon it, and plowed in nine inches deep. This year I put on two loads of manure, made of one-third meadow muck, and two-thirds cow manure, and plowed it in nine inches deep, about the middle of July. I then sowed upon it twelve pounds of guano, and harrowed it in; sowed with a machine, about fourteen inches apart, in rows.

EXPENSES.

Interest on land,	$,75
Twelve pound guano, 3 cts. per lb.,	,36
Sowing do.,	,03
Two loads manure, $1,00 per load,	2,00
Carting and spreading do.,	,20
Plowing land,	,20
Harrowing do.,	,06
Sowing seed,	,12
Seed,	,06
Hoeing twice,	2,00
Pulling and carting to barn,	,90
Topping and putting in cellar,	,60
	$7,28
Deduct one-half manure unexhausted,	1,18
	6,10
Weight of roots, 5362 lbs.; value, at ½ ct. per lb.,	26,81
950 lbs. tops, value,	1,50
	28,31
Nett profit,	$22,21

Abel Marshall's Statement.

The piece of ruta-baga turnips, which I offer for premium, were grown on fifty square rods of ground.—My manner of cultivating and manuring, was as follows:

I plowed the ground twice in the spring, and sowed on three-fourths of a barrel of bone manure, spreading it evenly over the surface; then took a double mould-board plow and laid the land in ridges, and then with a machine, sowed the seed upon the top of the ridges.

When the plants were large enough to hoe, I ran the plow through the furrow between the rows, and then wed and thinned the plants; and the work was done till harvesting.

EXPENSES.

Plowing the ground twice,	$1,00
Ridging the ground, sowing the bone manure, and sowing the seed,	1,50
Cost of seed,	,50
Cost of manure,	2,75
Hoeing and thinning,	1,00
Harvesting,	2,25
	$9,00

The amount raised was one hundred and fifty bushels. The cost of raising, without the interest on the land, was six cents per bushel.

John Brooks, Jr.'s Statement.

The piece of land that I enter for premium, on English turnips, contains one-eighth of an acre. Last

year it was cropped with carrots. Soil clayey loam.—This year I put two loads of manure, made of one-third meadow muck, and two-thirds cow dung, and plowed it in nine inches deep, about the middle of June, and sowed it with carrots. They did not come up. On the 1st of August I plowed it up, nine inches deep; sowed twelve pounds super-phosphate of lime upon it, and sowed it with English turnip seed, broadcast.

EXPENSES.

Interest on land,	$,75
12 lbs. super-phosphate,	,31
Sowing do.,	,03
Two loads manure,	2,00
Carting and spreading do.,	,20
Plowing land,	,20
Harrowing land,	,06
Sowing seed,	,06
Seed,	,06
Brushing in,	,06
Pulling and carting to barn,	1,00
Topping and putting in cellar,	2,20
	6,93
Deduct one-half manure unexhausted,	1,15
	5,78
Weight of roots 6160 lbs.; value 1-3 ct. per pound,	23,87
1520 lbs. top, value,	3,20
	27,07
Nett profit,	$21,29

FARMS.

COMMITTEE.—Ezra Kendall, Sterling; Joel Hayward, Ashby; Abel F. Adams, Fitchburg.

The farm of George Chandler, of Shirley, was duly entered with the Secretary of the Worcester North Agricultural Society, for inspection and premium. And this being the only one, among the many embraced in this large district of farming community, rendered the task of your Committee very light.

We found Mr. Chandler's farm, consisting of about forty acres, in a condition which it is desirable that all farms should be; that is, the whole area cultivated, and in a pretty high state of improvement, showing that he has discarded the old idea that a farm should consist of a given number of acres, "suitably divided into mowing, pasturing and tillage," and as such to remain, and to be used for no other purpose. From this small area of land his receipts were $2357,77, and his expenditures $1587,-49, leaving a balance of $770,28, as his clear income. As his statement of his transactions accompanies this report, it is not necessary to go into details of his operations here, and we need only to say, that we considered him well entitled to the premium offered by the Society for the best farm, and as being managed in a neat and thorough manner, leaving no unproductive and unsightly places to mar and disfigure its surface.

Your Committee adopted a plan, which it is to be hoped will be more fully carried out by their successors. It was to visit such friends of our Society as we supposed would be gratified in submitting their farms to

our inspection, and in imparting all the information in their power.

In pursuance of this idea, we called upon Leonard Burrage, of North Leominster, and spent a very pleasant forenoon in rambling over his small, but beautiful, and highly cultivated farm. Here, too, we found that system, economy, and thorough cultivation were established and carried out in a most admirable manner. Every thing in order, well arranged, and substantial, combining all the comforts and happiness, as well as producing the desired income of a New England farm.

In the afternoon, we paid our respects to Mr. Solon Carter, another of our successful and thoroughly enterprising cultivators of the soil. We found him at home, and in his field, with sleeves rolled up, deeply engaged in securing his crops, but none the less ready to drop his tools and extend the friendly greeting and cordial reception to his intruding guests. This farm, so long known as the Carter farm, needs no praise from us, for it is distinguished as well for the good quality, and depth of its soil, as for its elevated and commanding position; and seems likely to be perpetuated and improved by its present proprietor.

We must not omit to notice a passing call which we made at Dr. C. C. Field's, the worthy President of the Leominister Agricultural Society. Our reception was cordial, and we were shown his foreign breed of stock of the Jersey kind, as well as his small, but well conducted plat of land, and convenient and substantial farm buildings. The Doctor is evidently averse to the ancient division, so much and so long used in advertisements; for we saw as large, if not the largest, corn of

this season, upon what was a rather poor and unproductive pasture, the remainder of which seems destined to the same renovating process.

We need no extended treatise upon cultivating the earth, as we have them without number. But we do want more Farmers to become more thorough, and interested co-workers in subduing and beautifying the unsightly and unproductive land which everywhere surrounds us. Much of our rich land is still covered by brush and crooked thickets of alders, which once reclaimed, would produce abundant crops for remuneration. Farmers are proverbial for their unwillingness to recieve and adopt new ideas, and to avail themselves of tools and machinery to facilitate their operations; by which reason, they, as a class, are far behind other callings and occupations of our community. Too much of their property, and often *all* and more too, is invested in land, leaving no floating capital to enable them to proceed in their business to the best advantage. The demand for our productions, far exceeds the supply, so there is no want of encouragement. But from the signs of the times, it is still to be seen, which is most to be encouraged, those who raise and drive the noble and patient ox, the majestic and useful horse; or those who drive and train the fast nags of very fast, but not always reliable men.

EZRA KENDALL, *Chairman.*

George Chandler's Statement.

I purchased my farm in the Spring of 1838, and took immediate possession of the premises. It contained forty-seven acres, divided as follows: Mowing and tillage, thirty acres; pasturing, nine acres; and, eight acres of wood-land. I paid for my farm, $2650,00, and sold the original growth of wood and timber at a net income of $503,00. A new crop of wood has completely covered the ground from whence the first was removed. It is of about eight years growth, and is now estimated at forty cords. The thrifty growth of the new crop convinces me that the land is not mis-applied, and that the entire removal of the existing growth was a matter of economy.

When I took possession of my farm, the pasture was comparatively new, being covered with the stumps of a dense primeval forest. It was partially covered with sweet-fern, which has been removed by cultivation. It will now give sustenance to five cows during the grazing season. Both this and my other open lands were destitute of good fences, when I commenced their occupation. I have since built five hundred and twenty rods of wall upon the farm.

My mowing and tillage lands are level, but slightly inclined in a north westerly direction. The soil is, for the most part, a dark slaty loam, and has required considerable draining to bring its profitable qualities into use. It also requires a generous allowance of top-dressing to secure from it a series of profitable harvests.

In 1838 my mowing lands yielded hay sufficient to winter ten head of cattle. The amount has been con-

stantly increasing from year to year up to the present time, and for the last few years, I have kept from twenty-five to thirty head of horned cattle,—the larger half under two years of age,—and from twenty to forty horses and colts. A fair estimate of my present stock of hay would not be less than forty tons. My manure has always been thrown into a barn cellar, and there passed the usual process of pulverization, which hogs have an innate propensity to bestow; when a part of it has been spread uncomposted upon the newly turned soil, or under the sod, which I believe is far better, and the rest has been composted and used as a fertilizer for mowing lands. I have, in this way, made and used two hundred loads of top-dressing per year.

My first grain crop was forty bushels of corn, ten of oats, and eight of wheat. My wheat crop has been so small that I discontinued its cultivation, after a few trials, being satisfied that the soil was uncongenial to its growth. Last year I had two hundred and fifty-one bushels of corn, and one hundred and thirty bushels of oats. This year's crop of oats are yet in the straw; good judges, however, believe that I cannot have less than two hundred and fifty bushels. And my corn crop never promised better, if it is not cut short by an unseasonable frost.

During several of the first years of my husbandry, I paid but little attention to the cultivation of roots.—Of late, however, I have made it a matter of special attention. In 1838 I raised fifty bushels of potatoes; in 1855 I raised one hundred and forty bushels of potatoes, two tons of carrots, one ton of beets, one hundred and forty bushels of flat turnips, and four hundred

heads of cabbage. I need not tell the practical farmers of your Society, the *practical* benefit of these productions.

When I took my farm it had no select fruit, but chance apple-trees in a natural state had found growth here and there, and were in a thriving condition. From the fruit of these trees I made twelve barrels of cider in 1838. I commenced the next spring, converting these trees into bearers of the various kinds of choice apples, which the market demanded; and, now, none other are allowed to encumber their branches. I have, also, set out eighty-six new trees, the most of which have come to a bearing state. I have also, planted one hundred and seventy-six peach trees, of several varieties; and have also, cultivated the pear, the cherry, the currant, and the quince, to some extent, so that the income from my fruit for the five last years has amounted to the average sum of $200.

Before closing my "statement," I will trouble the Committee with a description of the manner by which I reclaimed a piece of hard, swale land, containing about one and a half acres. In substance, the description was given in a statement made to the Committee of another society, in 1850, and printed in the State Transactions of Agricultural Societies of that year.

It was in 1849 that I enclosed the above named patch with a suitable fence, and put upon it twenty swine, thinking that they, with the implements with which nature had furnished them, might pulverize a soil too wet to be cultivated by the usual process. In this I was not mistaken; the long-nosed plowmen turned up and turned over the ground with strict fidelity. The

hogs remained in the enclosure seventy days, when their work was finished, and they were removed. The land was then harrowed, and stones sufficient to make sixteen rods of wall were taken from it. It was then drained, and sowed with red-top and timothy grass seed, and in the spring with clover seed. The crop of hay that has been taken from it has amounted to the average sum of two and a half tons per acre since its renovation.

The first cost of the swine was,	$76,00
The expense of keeping them on this land,	42,00
The further expense of keeping them until sold,	25,88
Whole cost,	$143,88

They were sold for, $152,62, leaving a net gain of $8,74.

My experience has driven away the old notion that I was wont to entertain—and one which is yet held by too many of my brother farmers—that we should "let well enough alone." A consideration of the progress we witness in other pursuits, requires us to *experiment* in our calling, and to read the accounts of the experiments of others. To this end, we should patronize agricultural societies, and agricultural publications, and thus endeavor to become acquainted with the theory and science of our profession, no less than with its practice. In this way we may give dignity and popularity to that too much rejected occupation, which is, in reality, at the foundation of the world's temporal hope and blessings.

FRUITS AND FLOWERS.

COMMITTEE.—Peter S. Snow, Fitchburg; Porter Piper, Leominster; Jonas A. Marshall, Thomas C. Caldwell, Ebenezer Torrey, Norman Stone, G. F. Bailey, Fitchburg.

The Committee on Fruits and Flowers, submit the following report:

The collection of fruits on exhibition this season was small, compared with that of preceding years, with the exception of peaches and pears, the display of which was so rich and extensive as to render it very difficult for the Committee to do justice to the various exhibitors, in the distribution of the premiums.

APPLES.

The Committee award to Jonas A. Marshall, for the best collection of apples, consisting of thirty-eight varieties, the first premium of	$4,00
L. H. Bradford, for twenty-five varieties,	3,00
Moses M. Gage, for nineteen varieties,	2,00
Moses Wood, for eleven varieties,	1,00

They also, award the following gratuities for fine specimens of apples:

William Sampson, for Garden Royal,	1,00
Ephraim Graham,	1,00
Leonard Burrage,	1,00
Charles Flagg,	,50
T. R. Boutelle,	,50
B. F. Proctor, for Roxbury russets,	,25

PEARS.

Benj. Snow, Jr., for best collection of pears,

consisting of twenty-one varieties, $4,00
William G. Wyman, for fifteen varieties, 3,00
Jabez Fisher, for fifteen varieties, 2,00
Jonas A. Marshall, for twelve varieties, 1,00
T. R. Boutelle, a gratuity for six varieties, 1,00
Mrs. A. F. Beaman, Bartlett pears, gratuity, ,50

PEACHES.

Benj. Snow, Jr., for best collection of peaches, consisting of fifteen varieties, $2,00
L. H. Bradford, for six varieties, 1,50
Addison Hubbard, for thirteen varieties, 1,00
Joseph Baldwin, for six varieties, a gratuity of ,50
Levi Farwell, for two varieties, a gratuity of ,50
D. H. McIntire, a gratuity of ,50
Charles Nicholson, a gratuity of ,50
Benj. Safford, a gratuity of ,50

PLUMS.

Jonas A. Marshall, for best plate of plums, $1,50

QUINCES.

Addison Hubbard, for best collect'n of quinces, $1,00
Ezra Kendall, for 2d best collection of quinces, ,50

GRAPES.

Jabez Fisher, for best specimens of grapes, Northern Muscadine, and early amber, $1,00
Thomas Palmer, for Isabella grapes, ,75
Moses Wood, for Isabella grapes, ,50
Walter Heywood, a gratuity of ,50
H. F. Coggshall, Concord grape, a gratuity of ,50

ASSORTED FRUIT.

Benj. Snow, Jr., for best dish of assorted fruit, $2,00
Jabez Fisher, for 2d best do. 1,00

BOQUETS.

Mrs. Thomas Palmer, for best boquet, $1,00
Miss Hannah R. Newcomb, 2d best do., ,50
Mrs. John Upton, a gratuity of ,25
Mrs. W. H. Knapp, for two elegant boquets, not received in season to entitle them to a premium, the Committee award a gratuity of 1,00

CRANBERRIES.

Charles Flagg, a gratuity of $1,00
A. F. Andrew's, a gratuity of ,50

Walter Heywood, two orange trees, bearing fruit ,50

The Committee are happy to express their obligations to Mr. Walter Heywood for adorning their tables with beautiful green-house plants and shrubs in pots.

Although the amount of fruit is small, as compared with former exhibitions, your Committee are very glad to notice that the selections are generally of a higher character, and indicate an increasing desire to cultivate the more choice varieties of fruit.

P. S. SNOW, *Chairman.*

VEGETABLES.

COMMTTEE.—E. F. Bailey, Fitchburg; John Sawin, Gardner; Hale W. Page, Daniel Lowe, Artemas F. Andrews, Natt Cowdin, A. S. Dole, Fitchburg.

Your Committee on vegetables have attended to their duties, and report as follows:

We have awarded, for the best display of vegetables, regard being paid to their usefulness, beauty and rarity:

Benj. F. Proctor, the first premium of	$3,00
Thomas R. Boutelle, the second premium of	2,50
Jonas A. Marshall, the third premium of	2,00
Alvah Crocker, the fourth premium of	1,50
Walter Heywood, the fifth premium of	1,00
Jabez Fisher, the sixth premium of	,50

In addition to the above, we award the following gratuities:

William G. Wyman, for the best display of varieties of potatoes,	,50
David Battles, for potatoes,	,40
William Woodbury, for potatoes,	,33
George Miles, for potatoes,	,33
Ephraim Crocker, for potatoes,	,25
Asa Sawyer, for potatoes,	,25
E. C. Farwell, for potatoes.	,25
Wm. W. Watson, for potatoes,	,25
Joseph Baldwin, for squashes,	,50
C. H. Baldwin, for squashes,	,33
Joseph F. Simonds, for squashes,	,30
S. W. Putnam, for squashes,	,25

Adonijah Barnes, for tomatoes,	,40
David Lowe, for tomatoes,	,25
H. W. Houston, for tomatoes,	,25
David B. Dole, for tomatoes,	,25
William Murnane, for cabbages,	,25
Lorriston Stockwell, for melons,	,50
Thomas E. Daniels, for pumpkins,	,50
A. Hubbard, for cucumbers,	,15
Charles Flagg, for beets,	,15
D. Dickinson, West Townsend, Chinese sugar cane,*	,50
Israel Everett, Young America potatoes,	,25

E. F. BAILEY, *Chairman.*

BREAD, BUTTER, CHEESE, PICKLES AND HONEY.

COMMITTEE.—Judson S. Brown, Elnathan Davis, Joseph Baldwin, Waldo Wallace, Mrs. Ebenezer Torrey, Mrs. N. A. Tufts, Mrs. L. H. Bradford, Fitchburg; Mrs. Solon Carter, Leominster; Mrs. J. T. Everett, Princeton; Mrs. Ezra Kendall, Sterling.

BREAD.

Nothing, upon which the physical constitution is dependent, for its support, is more important than the article of bread. In fact, such are its accredited relations to the human family, that it has by way of *pre-eminence* been called the *"staff of life."* Hence for a young lady to aspire to possess the art of making *good bread,*

---

* Mr. Dickinson states that thirty-six bushels of the cane will make one barrel of molasses, equal to the best syrup.

is an object *worthy* of her *highest* ambition, and most persevering effort, and we may add, a *safe and honorable* passport to the pure and elevating relations of domestic life. It is an old, and perhaps truthful maxim, that "a *smoking chimney* makes a *scolding* wife," but we think quite as ancient and *apparent* is the fact that *poor bread* makes cross and fault-finding husbands.

The tendency of the present age, seems to be toward an *intellectual* and *ornamental* education for our daughters, to the *neglect* and almost utter *exclusion* of the domestic and more practical duties to which nature and Providence have alike called them. While, therefore, we would have our daughters *polished, intellectually*, after the similitude of a palace, and adorned with all the graces that science and art can confer, we would impress upon them the importance of that higher, nobler training, which shall qualify them for the practical duties of domestic life, and the exalted *sphere* of a *co-laborer* with him with whom they may link their affections and earthly destiny.

The competitors in this department were not as numerous as could be desired, and yet, for the encouragement of future exhibitions, we are happy to say, that *all* have done well, and that our partiality has not been dictated so much by *principle* as *taste*. Your Committee unanimously agreed upon the following awards:

For the best loaf of wheat bread, Miss Emily E. Eaton, of Fitchburg, 1st premium, $1,00

For the second best, Miss Lizzie H. Howard, of Fitchburg, 2d premium, ,50

Also, would recommend a gratuity to Miss Fanny Upton, of Fitchburg, of ,25

For the best loaf of bolted rye bread, to Miss Mary L. Adams, of Fitchburg, 1st prem., $1,00

For the best loaf of rye and Indian bread, to Miss Lizzie H. Howard, of Fitchburg, 1st premium, 1,00

For the second best, Miss Alice Jane Wellington, 2d premium, ,50

BUTTER.

Whatever of argument or expediency there is that will apply to the necessity and importance of making good bread, will apply with equal, and perhaps greater force to the making and use of good butter.

The art of making good butter comes down to us through the venerable lapse of ages, and centuries long since passed, bearing upon its hoary brow alike the marks of time and of vernal freshness and purity.

So important has this product of our farms become, that she who successfully vies with her sister dairy-woman in producing the *purest*, *sweetest*, and most palatable aaticle, can command for it her own price, and stands forth as the undisputed sovereign of the product of her own industry and skill, without a competitor or rival. Such a position of celebrity however, is occupied but by the few, while the mass plod on in the old beaten track, with but little, seemingly, to care or hope for.

The demand for good butter, both at home and abroad, is rapidly increasing, and should stimulate our farmers not only to increase its supply, but so far as possible, improve its quality.

Most of the specimens contributed for the inspection of your Committee, were of superior quality, and serve

as significant evidences of what our fair dairy-women can do in this section of old Worcester County.

After a careful and thorough investigation, the Committee unanimously agreed upon the following awards;

Charles Flagg, of Sterling, 1st premium of,	$3,00
George Miles, of Westminster, 2d premium,	2,00
Levi Kendall, of Fitchburg, 3d premium	1,50
S. Melville Caswell, of Fitchburg, 4th prem.,	1,00

CHEESE.

But three lots of cheese were submitted for the inspection of your Committee, and as there seemed to be three grades in those lots, we found no difficulty in awarding your bounty, and that without the slightest fear of ill feeling toward any of the Committee.

George Miles, of Westminster, 1st premium,	$2,00
To the same, 2d premium,	1,50
W. W. Watson, of Princeton, 3d premium,	1,00

PICKLES.

But few lots of pickles were presented for the inspection of your Committee, and those not of a superior quality. The Committee, however, make the following awards:

Eunice Caswell, for a jar, 34 years old,	,50

HONEY.

To man, an all-wise Providence has seen fit to pledge a succession of seed-time and harvest, with the early and latter rain. But to the humble, busy bee no such manifest relation has been made, and yet with an in-

stinct that assures success he goes to his daily task, and finds as the reward of his industry, as the blasts of winter howl about his humble dwelling, that he is secure from its rage, and within his grasp are garnered a bountiful supply of the fruits of his own patient and untiring industry.

The present season has been one of unusual fruitfulness to the bee. A kind Providence has furnished for them an abundance of the sweet and fragrant clover, from whose opening petals they have gathered the luxurious honey in abundance, both for themselves and us.

Your Committee have made the following awards:

Jonathan P. Davis,	,75
Thomas Palmer, of Fitchburg,	,75

All of which is respectfully submitted,

J. S. BROWN, *Chairman.*

George Miles' Statement.

Our process of making butter, in the summer, is to strain the milk in tin pans, when brought from the cow, set it on the bottom of a cellar used expressly for that purpose, and ventilated from the north. It is thus suffered to remain twenty-four or thirty-six hours, when the cream is separated from the milk, and deposited in an open vessel there to remain till a sufficiency is acquired for a churning. A free ventilation both for the milk and the cream, we consider as absolutely important to the making of good butter. When either are confined in a tight room or close vessel for any considerable

length of time, a kind of fœtid flavor will be imparted to the butter, destroying that peculiarly rich and delicate flavor, which no process of manufacture can ever afterwards fully restore.

The churning is performed in the ordinary way.—When the milk is as fully extracted from the butter as possible at the time, one pound of rock salt, and a tea-cup-full of fine crushed sugar is added to each sixteen pounds of butter, and thoroughly worked in. It is then suffered to remain for twenty-four hours, and then worked over again, when it is in the right state to be prepared for the market or for packing.

George Miles' Statement.

In making new milk cheese, we make but one cheese per day. Hence we strain the milk at night into pans. In the morning the cream is taken from it, and the milk warmed to a blood heat; then put to the morning's milk and the cream returned to it, and the whole set for the cheese, with one spoonful of rennet to two pails of milk. In thirty to forty minutes the curd will have formed, when it is carefully cut with a wooden knife, in lines crossing each other at right angles, in order that the whey may rise freely. A portion of the whey is then dipped from it, and heated somewhat above blood heat, and returned again to the curd. The object of this is to make the curd close better in pressing. It is then put in a basket to drain with moderate weight upon it; after which it is cut into pieces about the size of dice, and seasoned with about one pound of salt to twenty-

four of curd. It is then transferred to the press, with a moderate pressure at first, gradually increasing it for two days. It is then taken to the cheese room and dressed over with butter, and turned daily until cured.

In making sage cheese, we take a little green sage, with some green leaves of corn, to heighten the color, and pound up together, and express the juice, which is added to one-half of the milk when set for the cheese.

FANCY ARTICLES.

COMMITTEE.—John J. Piper, Leander Sprague, John Upton, Mrs. Otis T. Ruggles, Mrs. Alvah Crocker, Mrs. J. J. Hardon, Mrs. John Upton, Mrs. William W. Comee, Fitchburg; Mrs. Porter Piper, Leominster.

The show of fancy articles compares favorably with those of former exhibitions. The contributions were, many of them, fine specimens of the taste, industry and skill of the ladies of Worcester North. Numerous articles deserved special mention, to which premiums were not awarded, on account of the limited funds placed at the disposal of the Committee.

The following is a list of the premiums awarded:

Mrs. Otis T. Ruggles, a beautifully wrought worsted picture, in an elegant frame,	$4,00
Miss Caroline W. Stevens, Swiss cottage,	1,50
" Sarah F. Willard, colored crayon drawings and pictures,	1,50
Mrs. J. F. Stiles, two boxes of embroideries,	1,50

Miss Mary E. Crocker, embroideries, 1,00
" Sarah Pratt, transparent work collar, ,50
" Martha Ellis, embroidered dress and scarf ,75
" M. Marshall, work box, ,50
" Ruth Q. Trask, hair work, 1,00
Mrs. Albert Sawyer, hair work, ,75
Miss Mary Whitney, hair work, ,50
" Emily Gardner, knit bed-spread, 1,50
" Hannah A. Newcomb, tabouret and chair, ,50
" Mary Whitney, wax fruit, ,25
" Mary E. Whitney, acorn basket, ,25
Mrs. D. Flint, (75 years old) lamp mat and slippers, ,50
Miss Fanny J. Torrey, embroidered skirt, ,75
Mrs. E. A. Burnett, ,50
" E. Caldwell, embroidered sleeves, ,25
Miss Lucy Damon, wax flowers, ,50
Mrs. George Rice, embroidered record, ,25
" Henry Brewer, bed quilt, ,50
" Louisa A. Clark, braided mat, ,25
" Ann Jane Howard, bed quilt, ,50
" A. E. Nutting, braided mat, ,25
" Sarah J. Foster, rag mat, ,25
Miss Abby J. Wetherbee, embroidered skirt, ,25
" Sarah A. Marshall, wrought collars, ,25
" M. A. Beckwith, worsted embroidery and worsted collar, ,50
" Abby R. Younglove, wrought collar, ,25
Mrs. Emily A. Damon, embroidered scarf and collars, ,25
Miss Lucinda A. A. Huntley, (12 years old) gloves, ,25

" Fannie S. Tolman, (9 years old) slippers, ,25
" Martha Stevens, collar, ,25
" Ellen M. Baldwin, embroidered skirt, ,25
" Abigail Farwell, embroidered slippers, ,25
" Emily E. Whitney, embroidered slippers, ,25
Mrs. Hannah Tuttle, shell work and embroidery ,50
Miss Emily A. Sawtelle, embroidered sleeves, ,25
Mrs. S. Newton, (70 years old) patch-work quilt, ,50
" Mrs. C. Wright, rag mat, ,25

JOHN J. PIPER, *Chairman.*

MECHANICS AND MANUFACTURES.

Commttee.—George E. Towne, Fitchburg; J. C. Lane, Leominster; Calvin S. Greenwood, Gardner; George C. Winchester, John L. Cummings, Ashburnham; William H. Brown, Princeton; Edward Burpee, Sterling; Salmon W. Putnam, Gordis D. Harris, Alonzo Davis, Wm. H. Vose, N. H. Richardson, Fitchburg.

Your Committee regret to be obliged to announce that, from some unexplained cause, they found a very meagre show of manufactured articles awaiting their inspection.

This, we cannot but feel, is not as it should be.—Worcester County, from the variety and extent of the manufactures in which her inhabitants are industriously engaged, has been, and is justly entitled to be called the work-shop of the Commonwealth, and in some departments of manufacture, of New England, and even of the entire Union.

We are at a loss to account for the apparent lack of interest in what should be, if not the most, certainly not the least, interesting department of our annual exhibition. We have heard some complaint of want of notice as to the time of holding it, but this, though it may have been the cause in some isolated cases, seems hardly to account for the general falling off from previous years; and from those localities where your Committee have personal knowledge that notice was fully given, the show is very small, much smaller than in any year of which we have any recollection.

The only plausible reason we have heard assigned is that the article most extensively manufactured this fall, namely, political capital, is one the quality of which is too poor even for bare-faced politicians to enter for exhibition, much less for premium. Be the cause what it may, we most earnestly appeal to the mechanics of Worcester North to see to it that their department of the yearly show in future as well represents the mechanical, as the show of fruit, vegetables, and live stock does the agricultural interest.

The general character of the articles exhibited was good, the quality not falling behind our past year shows at all. It would be impossible, of course, to notice at length each article exhibited, without exceeding the proper limit of this report. Suffice it to say, that hardly anything was inspected by us undeserving of more than a passing notice.

We have awarded the following premiums:

H. W. Catlin, for two barrels of extra nice flour, manufactured by him, $3,00

Mr. Catlin also had on exhibition a half barrel of Graham flour of very good quality.

Abel F. Adams, for the best specimen of rye flour with which your Committee have ever had any experience, $1,00

For beautiful specimens of flour, homony, Indian, Graham, and rye meal, &c., presented by I. Carleton & Co., of their own manufacture $2,00

Warren Simonds, of East Templeton, for a roll of calf skins, which for softness, smoothness and evenness, we have never seen equalled, $1,50

Simonds & Follett, of E. Templeton, exhibited a roll of calf skins, heavier, but not quite so fine and nice as the first lot. We award them a premium of $1,00

J. L. Tenney, two pairs each, of thick and thin boots. These were particularly good. The stock was carefully selected, and the workmanship was excellent, particularly the thick ones. Your Committee from their own experience of wet feet, and consequent cold and suffering, brought on by boots poorly made from poor stock, were well prepared to appreciate the substantial and water-proof appearance of these. We award a premium of $1,00

I. B. Woodward offered a specimen of stocking yarn, of that rare, and growing rarer kind, called home-made. If our young ladies could play their pianos a little less, and in place thereof learn to spin and knit home-made yarn, their husbands would at least have warmer stockings, and still have music enough for all practical purposes. We award a premium of ,25

Mrs. Levi Kendall, home-made yarn, ,15

Mrs. Ann M. Smith exhibited a roll of very nice rag

carpeting. The colors were very tastefully and artistically arranged, and the fabric much finer than is usually seen. We award, $1,50

Thomas Sheldon, for one very superior ox yoke, of good workmanship, ,50

O. J. Munroe offered a spruce log sawed to clapboards. This was a fine specimen, showing the usual manner of sawing clapboards where the business is carried on to any extent. Instead of first sawing into boards and then splitting them, the log is taken, cut to the right length, and turned to a proper and uniform size. It is then placed upon a carriage before a saw, so arranged that each time as it passes over the saw it is cut directly toward the center, and to a depth sufficient for the width of the clapboard. It is then drawn back, the log turns on its center just far enough for the thickness of a clapboard, and another cut is made, and so on, till it is sawed entirely round. The cuts being all directly to the center, of course diverge as they go further from it, thus giving the clapboard its proper shape. A great saving of timber is thus effected as will be readily seen. We award a premium of $2,00

S. G. Frost presented some specimens of harness of very superior workmanship, tastefully ornamented and mounted. Your Committee were particularly struck with the well shaped collars, uponwhich so much of comfort to the wearer depends, and which is so often through ignorance or carelessness entirely neglected. We award, $1,00

Messrs. Stone & Wilder presented a fine specimen of Ashland coal. It looked clear and pure, and seemed

remarkably free from slate and earthy particles.—Your Committee were however unanimously of the opinion that if the gentlemen were desirous of a thorough test of its good qualities, the surest and best mode would be to send a ton to each member, and they would then be much better prepared to speak of its merits as they deserved.

Isaac Hartwell offered two sinks; one marble and one soap stone. These taken in connection with specimens of marble cutting from his establishment, by Mr. George Reed, formed a very interesting part of the show. We award, $2,00

A. Simonds presented a case of very highly finished scythes, hay-cutters, knives, &c. We can suggest no improvements to the highly polished and keen edged specimens, unless it be that those designed for Kansas market, should be double-edged, and have a handle like a sword. They would be of more use in that shape for a new country like Kansas, than in the usual form. We award them, $2,00

Israel Everett exhibited two shovels of a new and very ingenious pattern, the blade instead of being rivetted on to the shank, as usual, is forged with the shank in one piece. By this means the shovel can be made much smoother, and the tendency of dirt to collect on the blade is obviated. Your Committee regard this as a great improvement on the old form, and much less liable to get out of order. We award a premium of $1,00

For six chairs, very gaudily and showily finished, by J. H. Holden, $1,50

William Woodbury exhibited a variety of wire work

comprising seives, rat-traps, broilers, toasters, egg beaters, and many mysterious looking things, the use of which your Committee did not dare to even guess at. We award a premium of $2,00

Alfred Whitmore, two nests of tubs, $1,00

Stump puller, patented by S. W. Ruggles. This is a very ingenious combination of chains, levers and gearing, by the multiplying of which a most enormous power is produced. It is portable and simple, and will do the work thoroughly. Attached to the same is, or may be, a press for bundling up hay or cotton. Your Committee witnessed the operation of this latter,and could not but be pleased with the simple and easy manner in which a barrel of shavings was compressed into a solid bundle, of perhaps a cubic foot. The stump pulling, owing to the scarcity of time and stumps, we did not witness. We award, $5,00

A set of scales, known as Sampson's Patent, were presented. The advantages claimed for these are simplicity of construction, and consequent less liability to get out of order; the free action of the platform, without any liability to wear the bearings or notches. The ample protection of the levers and bearings from exposure to snow and ice, and a new sliding weight, much superior to the common form. We were shown a set of hay-scales, which were erected for exhibition near the Fitchburg hotel, but not entered for premium. These were so nicely adjusted that a man could be weighed within one-fourth of a pound. Your Committee were of the opinion that for the reasons set forth, these scales must commend themselves to everybody. We give a premium of $3,00

The Fitchburg Paper-hangings Manufactory had on

exhibition some beautiful specimens of paper hangings, not however, entered for premium.

J. C. Moulton was on hand with an unusually good display of daguerreotypes. For true distinction of outline, clearness, and fineness of finish, and taste in mounting, these were well entitled to a high place, and your Committee award a premium of $2,00

Mrs. Thomas Trees entered two exquisitly finished bonnets which your Committee do not dare to undertake to describe. We award, $1,00

Specimens of artificial teeth, from the manufactory of Drs. Palmer & Brown were presented. These were of different kinds, one of which consisted of two sets of jaw-bones, showing with most horrible distinctness just how our teeth are made, and why we have the tooth ache. We award a premium of $3,00

We were shown also a shell, invented by Mr. S. Sawyer. This was an explosive projectile, designed to be thrown from a cannon. It is filled with powder, and arranged with a percussion cap on its front, so that when it hits the object aimed at it explodes with terrible force. From an examination of the effects of it at a recent trial, your Committee would cordially recommend it to any one who has a house, or fort or ship to be destroyed, as an instrument which will destroy more property in a given time than any thing within their knowledge. We award $1,00

For harness, by C. Fessenden, we award ,75

For buggy, manufactured by Prentiss, Story & Co., $1,00

For brass castings, by Stevens & Wheelock, comprising bells and ornaments, $1,00

Streeter & Ross, for weavers' reeds, ,50

We also saw a most mysterious combination of pipes,

funnels and dampers which we were told was a ventilating apparatus. In the absence of any information as to the manner in which it worked, we could express no opinion upon it.

In this connection we would suggest that exhibitors of machinery or mechanism of a complicated character, if they have regard for their own interest will in future wait upon the Commitee and explain the operation of it. In the absence of such explanation a really meritorious invention may be passed over from ignorance of what it is, or how it works, or what it is designed to do when it does work.

The American Hoop Machine Co. had on exhibition a set of their newly invented machinery for making hoops. The stick or pole is first run between several sets of vibrating feed-rollers, carrying it against a cutter, which splits it in two. Each one of these pieces is then passed through another machine which shaves and finishes it. By this machine a great saving of labor is effected; and by calculating the number of barrels for which there must always be a demand—for flour, pork, to say nothing of whiskey—some idea of the importance of the machine may be obtained. We award a premium of, $5,00

We cannot close our labors without again bearing witness to the general excellence of the articles exhibited, and had the quantity been equal, the show would have far exceeded any previous year. With an earnest appeal to the mechanics of Worcester North to make up the deficiency of this year by a surplus the next, and with a hope and belief that it will be so, we submit this report of our proceedings.

GEORGE E. TOWNE, *Chairman.*

ANALYSIS OF PREMIUMS & GRATUITIES AWARDED.

FARMS, &c.

Amount awarded for management of Farms,		$15,00	
"	" Plowing,	63,00	
"	" Agricultural Implements,	8,50	
			$86,50

FARM STOCK.

Amount awarded for Bulls,		$31,00	
"	" Working Oxen,	36,00	
"	" Steers and Calves,	26,50	
"	" Milch Cows,	38,00	
"	" Heifers and Calves,	26,00	
"	" Fat Cattle,	37,00	
"	" Horses,	54,00	
"	" Swine,	18,50	
"	" Sheep,	5,00	
"	" Poultry,	9,00	
"	" Town Teams,	30,00	
Total,			$311,00

FARM PRODUCTS.

Amount awarded for Indian Corn,		$17,00	
"	" Wheat,	4,00	
"	" Rye,	5,00	
"	" Oats,	5,00	
"	" Potatoes,	3,00	
"	" Carrots,	5,00	
"	" Beets,	2,00	
"	" Turnips,	5,00	
"	" Beans,	1,00	
"	" Fruits and Flowers,	46,00	
"	" Vegetables,	17,89	
"	" Bread, Butter, Cheese Pickles and Honey,	18,25	
Total,			$129,14

Amount awarded for Mechanical and Manufactured Articles,	$37,15	
" " Fancy Articles,	25,00	
		$62,15
Total amount awarded		$588,79

Premiums for agricultural objects were distributed as follows :

Princeton,	$183,50
Fitchburg,	164,93
Westminster,	48,48
Sterling,	33,65
Ashburnham,	15,25
Shirley,	15,00
Leominster,	8,50
Ashby,	6,75
Lunenburg,	4,00
Townsend,	4,00
Phillipston,	3,00
Total,	$487,06

FINANCES.

RECEIPTS.

Amount received from the Commonwealth,	$600,00	
" " " Income of the fund,	187,57	
" " " New members,	110,00	
Total,		$897,57

DISBURSEMENTS.

Amount of Premiums and Gratuities paid out,	$549,71	
" Current Expenses, &c., for the year,	216,33	
Total,		$766,04

Amount of the permanent fund,	1855,	$3100,00
" " " "	1856,	$3200,00

BY-LAWS

OF THE

WORCESTER NORTH AGRICULTURAL SOCIETY,

As adopted at a special meeting of said Society, held for that purpose, December 5th, 1855.

Article 1st. The officers of the Worcester North Agricultural Society, shall be a President, two Vice-Presidents, a Recording and a Corresponding Secretary, and a Treasurer; whose common duties shall be such as are usually performed by such officers; and who, together with as many other members, not less than twelve, as the Society may at each annual meeting by vote determine, shall constitute a Board of Trustees, all of whom shall continue in their several offices one year and until others are chosen and qualified to act in their places. Said officers shall be chosen at the annual meeting by a majority of the votes cast.

Art. 2d. The annual meeting of said Society shall be held in Fitchburg, on the first Wednesday in December, at such place as the Recording Secretary may provide.

Art. 3d. It shall be the duty of the Recording Secretary to call the annual meeting of this Society, and also to call special meetings, whenever the President, or in his absence, one of the Vice-Presidents; or whenever the three Trustees, or twelve members of the

Society, shall in writing request him to call such meeting.

Art. 4th. All meetings of this Society shall be called by publishing the notice and purpose thereof in one or more of the newspapers printed in Fitchburg, seven days at least before the time of holding said meeting.

Art. 5th. The Board of Trustees may call meetings of their Board at such times and in such manner as they may by vote direct; not less than six members being necessary to constitute a quorum for the transaction of business; but any number may be competent to adjourn.

Art. 6th. Said Board of Trustees shall have the management and control of all the property and funds belonging to the Society; shall appoint the time and place for holding their Shows or Exhibitions; determine and offer the premiums; make all the arrangements they may deem necessary and proper to carry into effect the design of the Society pertaining to their Shows; and have the general management of all the concerns of said Society, subject, however, to the votes of the Society.

Art. 7th. The Board of Trustees shall elect annually, from their number, three persons, to constitute a "Committee on Finance," whose duty it shall be to audit all accounts and demands against said Society, which may be presented for payment, and under whose advice and direction all moneys shall be disbursed, or invested by the Treasurer.

Art. 8th. It shall be the duty of the Treasurer, in addition to his common duties of keeping, investing,

disbursing, under the direction of the Committee on Finance, all moneys or funds belonging to said Society, to report in writing to the Board of Trustees, the state of the funds and property belonging to said Society, whenever said Board shall so direct, and to report in like manner to the Society at each annual meeting.

Art. 9th. Any person may become a member of this Society by paying to the Treasurer thereof the sum of five dollars; ($5,00) which shall entitle such person to a certificate of membership.

Art. 10th. The foregoing By-Laws may be altered or amended by a majority of the members present and voting at any meeting of this Society, notice of an intention to alter or amend, having been duly given in the call for said meeting.

Officers of the Society.

President,

THOMAS R. BOUTELLE, of Fitchburg.

Vice Presidents,

JOSHUA T. EVERETT, of Princeton,
MOSES M. GAGE, of Fitchburg.

Recording and Corresponding Secretary,

JABEZ FISHER, of Fitchburg.

Treasurer,

THOMAS C. CALDWELL, of Fitchburg.

Trustees,

OHIO WHITNEY, Jr., of Ashburnham.
SAMUEL P. GIBSON, of Ashby.
SOLON CARTER, of Leominster.
LEONARD BURRAGE, of Leominster.
THOMAS BILLINGS, of Lunenburg.
JOHN BROOKS, Jr., of Princeton.
GEORGE CHANDLER, of Shirley.
EZRA KENDALL, of Sterling.
SAMUEL OSGOOD, of Sterling.
BENJAMIN WYMAN, of Westminster.
DANIEL MILES, of Westminster.
EBENEZER TORREY, of Fitchburg.
MOSES WOOD, of Fitchburg.
ABEL F. ADAMS, of Fitchburg.
JOSEPH UPTON, of Fitchburg.
JOEL PAGE, of Fitchburg.
ISAAC B. WOODWARD, of Fitchburg.
DANIEL WORKS, of Fitchburg.
JAMES P. PUTNAM, of Fitchburg.
LEVI DOWNE, of Fitchburg.

Delegate to the Board of Agriculture,

JABEZ FISHER, of Fitchburg.

Life Members.

ASHBY.

Burr, Levi
Burr, John
*Burr, Joseph
*Burnap, Israel H.
Davis, John
Davis, Jonathan P.
Damon, Samuel R.
Foster, Jesse
Foster, Joseph
Gates, Howard
Gates, Paul
Gibson, Samuel P.
Hayward, John
Hayward, Joel
Hayward, Paul
Hayward, Samuel
Hubbard, Augustus
Hapgood, Wm. G.
Hodgman, Luther
Johnson, William
Kendall, George
Kendall, James O.
Lawrence, David
Patch, Jonas
Piper, John W.
Smith, Levi
Spencer, Hobart
Stanton, Stephen
Wallis, Benjamin
Wellington, Liberty
Wellington, Luke
Wright, Charles H.
Wright, Francis W.
White, Abram M. 34

ASHBURNHAM.

Barrell, Nahum
Cummings, John L.
Conn, John A.
Davis, John C.
Ellis, Daniels, Jr.
Foster, Jerome W.
Frost, J. Milton
Greene, Hosea
Howard, George
Hubbard, George B.
Howe, Perley
Howe, Addison
Jones, Gilman
Lane Elias
Marble, Warren,
Maynard, Antipas
Miller, Alfred
Merritt, Simon
Russell, Ward
Sampson, George G.
Whitney, Ohio, Jr.
Whitney, Amos
Whitney, Merrick
Whitney & Russell
Whitney Ohio
Wilker, Joseph W.
Wilker, John
*Willard, John
Whitmore, Enoch
Whitmore, Alfred
Willard, Merrick
Winchester, George C.
Winchester, Charles
Woodward, John G.
Works, Edwin D.
Ward, Isaac D.
Ward, Stephen
Ward, Alvan 38

BURLINGTON, VT.

Catlin, H. W.

BOSTON.

Cross, Daniel
Lucas, Edmund G.
Simonds, Alvan 3

*Deceased.

CLAPPVILLE.

Denny, R. S.

FITCHBURG.

Adams, Abel F.
Andrews, Artemas F.
Atherton, Shepard F.
Ackley, N. F.
American Rattan Co.
Brown, Jacob, 2d
Brown, J. S.
Brown, James D.
*Brewer, Henry
Bailey, Goldsmith F.
Bailey, E. Foster
Burnap, Samuel
Boutelle, Thomas R.
Boutelle, Mrs. Thomas R.
Boutelle, David
Boutelle, N. S.
Bullock, Laban
Battles, David
Billings, Charles J.
Beaman, Aaron F.
Blood, H. A.
Burnap, Edwin S.
Buttrick, Francis, Jr.,
Baldwin, Joseph
Caldwell, Enoch
Caldwell, Thomas C.
Cushing, Joseph
Choate, Thomas B.
Cowdin, Natt
Coggshall, Henry F.
Childs, S. Austin
Clifford, William J.
Caswell, Nathan,
Caswell, Hosea M.
Crocker, Alvah
Crocker, Ephraim
Comee, William W.
Carleton, Ira & Co.
Dole, Samuel M.
Dole, Abram S.
Davis, Alonzo
Davis, Joel
Davis, Elnathan
Day, Leonard
Daniels, Thomas E.
Downe, William S.
Downe, Levi
Eaton, Thomas S.
Eaton, Daniel S.
Emory, Daniel
Frost, Milton
Frost, S. Gilman
Fisher, Jabez
Fessenden, Charles
Farwell, Samuel
Farwell, Samuel, 2d
Farwell, Elijah C.
Fuller, Rodney
Fairbanks, J. H.
Fitchburg, Town of
Green, Asher,
Green, Mrs. Asher
Garfield, Elisha
Gage, George M.
Gage, Moses M.
Gage, Mrs. Moses M.
Graves, Howard M.
Goodridge, Alonzo P.
Heywood, Walter
Hardon, J. J.
Hollis, John W.
Harris John M.
Hill, Horatio
Hawes, Samuel
Hitchcock, Alfred
Hayward, Calvin
Haskins, F. W.
Hubbard, Addison
Hale, Samuel
Haskell, Jacob
Harris, Gordis D.
Hubbard, Eli A.
Hartwell, Isaac
Ide, Charles
Kimball, Alpheus
Kimball, Alpheus P.
Kenney, Henry F.
Kendall, Levi

Lowe, Henry J.
Lowe, David
Lowe Daniel
Lowe, John
Leathe, William M.
Lane, James B.
Lane, Mrs. James B.
Litch, Aaron K.
Lyon, Moses G.
Livermore, Charles
Manning, Joseph E.
Marshall, Jonas A.
Marshall, Abel
Marshall, Chedorlaomer
Manning, Abel
Marshall, Joseph A.
Mansur, Joseph W.
Moulton, J. C.
Merritt, William S.
Messenger, Daniel
Messenger, Horace P.
McIntire, James
McIntire, David F.
Montjoy, George W.
Norcross, Amasa
Osborn, Abram
Putnam James P.
Proctor, Benjamin F.
Proctor, John B.
Proctor, Mrs. John B.
Prentiss, Benjamin
Pride, William M.
Palmer, Thomas
Prichard, John
Pratt, Lawrin
Phillips, Ivers
Piper, John J.
Perkins, Francis
Phillips & Hammond
Page, Joel
Page, Hale W.
Pierce, Joseph
Partridge, Asa
Putnam, Salmon W.
Ruggles, Otis T.
Ruggles, Solomon W.
Richardson, J. B.

Snow, Benjamin
Snow, Benjamin, Jr.
Snow, Peter S.
Snow, C. H. B.
Snow, Francis H.
Stiles, James F.
Stiles, Mrs. James F.
Simonds, Abel
Simonds, Joseph F.
Stone, Norman
Smith, Edward
Smith, Joseph
Smith, John
Safford, Benjamin
Stearns, Varus
Sawtell, Charles
Sabin, John P.
Stickney, George O.
Sprague, Leander
Sheldon, Josiah
Sheldon, Francis
Sheldon, Thomas
Stockwell, Lorriston
Shattuck, Samuel
Saunders, Charles
Spaulding, Z. P.
Sawyer, Asa
Torrey, Ebenezer
Torrey, Mrs. Ebenezer
Thurston, Abel
ThurstonCyrus,
Tenney, Jonathan L.
*Town, Abial J.
*Towne, William B.
Towne, George E.
Tuttle, Lewis G.
Tolman, Jacob
Taylor, Stephen
Upham, Nathan
Upton, John
Upton, Mrs. John
Upton, Edwin
Upton, Thomas
Upton, Joseph, Jr.
Upton, Warren C.
Vose, William H.
Wallace, Waldo

Wallace, Rodney
Ware, T. K.
Ware, John F.
Wood, Nathaniel
Wood, Moses
Wood, Mrs. Moses
Wood, Elliott
Wood, William B.
Wood, Charles H.
Works, Daniel
Wilder, Charles W.
Willis, Henry A.
Wheeler, Loring
Wheeler, Benjamin
Wheeler, Samuel A.
Woodward, Isaac B.
Whitman, Jonathan
Whitcomb, Nathan
Whitney, Walter
Woodbury, William
Wyman, William G.
Woodbury, James M.
Wilson, Timothy S.
Wright, Alba C.
Wilkins, Aaron
Young, Z. F. 208

FRAMINGHAM.

Buckminster, William

GROTON.

Bean, Hazen O.

GARDNER.

Bancroft, Amasa
Bush, C. W.
Brick, A. H.
Bradford, Lewis H.
Bradford, Mrs. Lewis H.
Collester, Thorley
Greenwood, Calvin S.
Heywood, Seth
Hill, Henry C.
Heywood, Levi
Hill, Edwin
Hill, John W.
Merriam, Albert
Nichols, Washington
Parker, David
Stevens, S. W. A.
Sawin, John
Wood, Abel S.
Wood, Asaph 19

HUBBARDSTON.

May, L. A.

LEOMINSTER.

Burrage, Leonard
Carter, Solon
Field, C. Clesson
Nicholson, Charles
Nichols, Edmund H.
Morse, Augustus
Morse, Gardner
Merriam, Charles H.
Merriam, Gardner
Piper, Porter
Richardson, Sewall 11

LUNENBURG.

Billings, Thomas
Brown, W. L.
Cotting, William W.
Graham, Ephraim
Proctor, Frank M.
Pitts, Lemuel 6

LUDLOW, VT.

Albee, Hiram W.

PERU, VT.

Haynes, James L.

PHILLIPSTON.

Powers, Edward
Turner, Ephraim

PORTLAND, ME.

Stebbins, Horatio

PRINCETON.

Boyles, Henry
Brown, W. H.
Burpee, Solomon P.
Brooks, John
Brooks, John, Jr.
Beaman, G. S.
Clark, George P.
Danforth, Nathan
Everett, Israel
Everett, Joshua T.
Gregory, George M.
Mirick, Elisha G.
Nash, Samuel C.
Reed, Joseph P.
Reed, Nathan B.
Rice, John A.
Richardson, Sewell
Roper, John
Roper, Wilkes
Stuart, J. M.
Skinner, Harlow
Skinner, George O.
Temple, Jonas H.
Wilder, Mark
Whitcomb, W. H.
Whitcomb, Joseph
Watson, William W. 27

ROYALSTON.

Bemis, Otis
Clarke, Edson
Clarke, Timothy
Farrar, S. S.
Hale, Silas
Jones, Silas, Jr.
Jones, Aaron
Partridge, L. W.
Raymond, Joseph
Stockwell, Anan 10

SHIRLEY.

Chandler, George
Gardner. M. T.
Gardner, Jerome, Jr.
Going, John K.
Howe, Oliver
Holden, Nathaniel
Longley, Israel
Wellington, Timothy W.
Whitney, Thomas 9

STERLING.

Davidson, Amory
Flagg, Charles
Fitch, Charles B.
Heywood, Joseph P.
Hastings, Rufus
*Holbrook, Cyrus
Kendall, Ezra
Kendall, George
May, John
Nourse, Franklin
Osgood, Samuel
Peck, W. D.
Sawyer, Moses, 2d
Stevenson, John M.
Sawyer, Putnam
Sawyer, Wm. Franklin
Smith, Sidney
Whitney, Joseph
Wilder, Sidney R. 19

SYRACUSE, N. Y.

Phelps, Henry R.

TEMPLETON.

Boynton, John
Bowker, Jonathan
Day, Gilman
Davis, Joseph
Goldsmith, J. G.
Harris, Martin
Richardson, John A.
Simonds, Warren
Sawyer, Edwin
Sawyer, Joshua, Jr.
Smith, Levi N. 11

TOWNSEND.

Jones, Henry B.

WESTMINSTER.

Bacon, Edward, Jr.
Brown, Timothy
Benjamin, Ahijah W.
Barnes, Adonijah
Bigelow, Benson
Cooper, Samuel
Cowee, Orange G.
Chessmore, Reuben G.
Damon, Thomas
Divoll, Luke
Duncan, George N.
Ellis, Preston
Fessenden, John
Flagg, Otis
Foskett, Joel
Forbush, Joseph W.
Howe, Franklin
Hagar, Isaac
Jackson, Levi
*Kendall, George
Laws, David
Minott, John
Miller, John C.
Miles, Daniel
Miles George,
Merriam, Artemas
Merriam, Caleb S.
Merriam, J. & O. M.
Merriam, Joel, Jr.
Pierce, James
Puffer, Josiah
Puffer, James
Page, Josiah
Raymond, Asa
Raymond, Aretas
Raymond, Eli W.
Sprague, Samuel H.
Towne, Solomon F.
White, Marshall
Wood, Aaron
Wood, Benjamin F.
Wood, Allen B.
Winship, Sylvester
Winship, Handel
Whitney, Nathan
Wyman, Franklin
Wyman, David
Wyman, Benjamin 48

WINCHENDON.

Cutter, John
Murdock, Ephraim, Jr.
Murdock, Elisha
Raymond, Paul, Jr.
Whitney, Giles H. 5

WORCESTER.

Bullock, Alexander H.
Chase, Anthony
Goodnow, Silas H.
Richardson, George W.
Wheeler, W. A.
Whitcomb, David 6

Total, 466.

Past Presidents and Orators of the Society.

1850—Abel F. Adams—Hon. Charles Hudson, of Lexington.
1851—Abel F. Adams—Hon. R. Rantoul, (appointment not filled.)
1852—Ivers Phillips—Thomas E. Payson, Esq., of Rowley.
1853*—Ivers Phillips—Rev. Horatio Stebbins, of Fitchburg.
1854—Moses Wood—Gov. Emory Washburn, of Worcester.
1855—Moses Wood—Hon. N. P. Banks, of Waltham.
1856—Thomas R. Boutelle—Charles L. Flint, Esq., of Boston.

*First year of the incorporation of the Society.

LIST OF PREMIUMS

FOR THE

FIFTH ANNUAL EXHIBITION,

TO BE HELD AT

Fitchburg, on Friday, Oct. 2d, 1857.

No person will be allowed to become a competitor for any of the Premiums herein offered, unless he shall have made an entry for the same, with the Secretary, within the time prescribed for each class, nor unless he shall also, have furnished all required statements relating thereto within the specified time.

For the convenience of those who live at distance, all entries may be made by mail.

STOCK.

All entries for Premiums under this head, must be made on or before the Wednesday previous to the exhibition, and all Stock must be owned by the person who enters it.

All Neat Cattle and Swine, must have been owned by the person entering the same for at least three months next previously.

Each entry of Stock for the pens must specify the breed of the animal, if known, and the age.

All Stock will be weighed free of expense.

BULLS.

For the best Bull, more than two years old,	$6,00
" second best do.,	4,00
" third best do.,	2,00
For the best Bull, one year old, and less than two,	5,00
" second best do.,	3,00
" third best do.,	2,00
For the best Bull Calf, more than four months old,	4,00
" second best do.,	3,00
" third best do.,	2,00

MILCH KINE.

For the best Milch Cow, regarding age, quality, and quantity of milk, expense of keeping, &c., -	6,00
" second best do., - - - - -	5,00
" third best do., - - - - -	4,00
For the best three years old Milch Heifer, - -	5,00
" second best do., - - - -	4,00
" third best do., - - - - -	3,00
" fourth best do., - - - -	2,00
For the best two years old Milch Heifer, - -	5,00
" second best do., - - - -	4,00
" third best do., - - - -	3,00
" fourth best do., - - - -	2,00

Competitors for Premiums on Milch Cows, and Milch Heifers, will be required to certify in writing, at the time of entry, to the weight of the milk during the first seven days in June, and the first seven days in September; and to the manner of keeping, and general management. Cows that calve after the first day of June, may be tried at another time.

HEIFERS.

For the best two years old Heifer, intended to be kept for the dairy, - - - - -	$4,00
" second best do., - - - -	3,00
" third best do., - - - -	2,00
For the best yearling Heifer, - - -	3,00
" second best do., - - - -	2,00
" third best do., - - - -	1,00
For the best Heifer Calf, more than four months old, -	3,00
" second best do., - - - -	2,00
" third best do., - - - -	1,00
For the best Heifer Calf, raised by hand, - -	3,00
" second best do., - - - -	2,00
" third best do., - - - -	1,00

WORKING OXEN.

For the best pair of Working Oxen, - -	7,00
" second best do., - - - -	6,00
" third best do., - - - -	5,00

For the fourth best do., - - - - 4,00
" fifth best do., - - - - 3,00
" sixth best do., - - - - 2,00

STEERS.

For the best pair of three years old Steers, - - 4,00
" second best do., - - - - 3,00
" third best do., - - - - 2,00

The three years old Steers will be attached to carts, and tried like the Oxen, on the same ground; the cart and load to weigh two thousand pounds.

For the best pair of two years old Steers, - - $3,00
" second best do., - - - - 2,50
" third best do., - - - - - 2,00
For the best pair of yearling Steers, - - 3,00
" second best do., - - - - 2,00
" third best do., - - - - 1,00
For the best pair of Steer Calves, - - - 5,00
" second best do., - - - - 3,00
" third best do., - - - - - 2,00
" fourth best do., - - - - 1,00

TRAINED STEERS.

For the best trained pair of Steers, less than three years old, - - - - - 3,00

FAT CATTLE.

The entries of Fat Cattle must specify the mode of fattening.

For the best fat Ox, having regard to expense of feeding, $8,00
" second best do., - - - - 5,00
" third best do., - - - - 3,00
For the best Fat Cow, - - - - 6,00
" second best do., - - - - 3,00
" third best do., - - - - - 2,00
For the best fat three years old Steer, - - 6,00
" second best do., - - - - 4,00

SWINE.

For the best Boar, more than one year old, - - 4,00
" second best do., - - - - 3,00
For the best Boar, less than one year old, - - 2,00

For the best fat Hog, more than eight months old, - 4,00
" second best do., - - - - 3,00
" third best do., - - - - - 2,00
For the best fat Pig, less than eight months old, - 3,00
" second best do., - - - - 2,00
" third best do., - - - - 1,00
For the best breeding Sow, - - - - 3,00
" second best do., - - - - 2,00
" third best do., - - - - - 1,00
For the best weaned Pigs, not less than four, - 2,00
" second best do., - - - - 1,50
" third best do., - - - - 1,00

HORSES AND COLTS.

For the best Stud Horse, - - - - 6,00
" second best do., - - - - 3,00
For the best Draught Horse, - - - 5,00
" second best do., - - - - 3,00
For the best Breeding Mare, - - - 5,00
" second best do., - - - - 3,00
For the best three years old Colt, - - - 4,00
" second best do., - - - - 3,00
For the best two years old Colt, - - - 4,00
" second best do., - - - - 3,00
For the best yearling Colt, - - - 3,00
" second best do., - - - - 2,00
For the best Colt, three to six months old, - - 3,00
" second best do., - - - - 2,00
" third best do., - - - - 1,00

SHEEP.

For the best flock of Sheep, not less than six, owned by one person, - - - - 3,00
For the best Cosset Sheep, - - - - 2,00
" second best do., - - - - 1,00
" third best do., - - - - - 50

POULTRY.

For the best dung-hill Fowls, not less than six, - 2,00
" second best do., - - - - 1,00
" third best do., - - - . ,50

For the best Turkeys, not less than six, - - 2,00
" second best do., - - - - 1,00
" third best do., - - - - ,50
For the best Geese, not less than six, - - - 1,00
For the best Ducks, not less than six, - - 1,00

PLOWING MATCH.

All entries for Plowing must be made on or before the Saturday previous to the exhibition.

DOUBLE TEAMS.

For the best Plowing, - - - - 10,00
" second best do., - - - - 8,00
" third best do., - - - - 6,00

SINGLE TEAMS.

For the best Plowing, - - - - 8,00
" second best do., - - - - 6,00
" third best do., - - - - 4,00
" fourth best do. - - - - - 2,00

In all cases where a Premium may be awarded to teams for Drawing, if driven by a Minor—or in Plowing, if the Plow is managed by a Minor—said Minor shall be entitled to a gratuity equal to fifty per cent. of the Premium.

TOWN TEAMS.

For the best ten yokes of Working Oxen, from a single town, - - - - - $20,00
" second best do., - - - - 10,00

If there be present more than ten yokes, the Committee shall designate which ten shall receive the premium.

CROPS.

All entries for premiums under this head, must be made with the Secretary, on or before July 1st. Immediately after that date, the Secretary will transmit to all competitors a copy of the following blank form :

STATEMENT

Concerning a crop of raised by Mr.
in the town of 1857.
What was the crop of 1855?
What manure was used, and how much?
What was the crop of 1856?
What manure was used, and how much?
What is the nature of the soil?
When, and how many times plowed, and how deep?
What other preparation for the seed?
Cost of plowing and other preparation.
Amount of manure, in loads of thirty bushels, and how applied.
Value of manure upon the ground.
When and how planted, and the amount and kind of seed.
Cost of seed and planting.
How cultivated, and how many times.
Cost of Cultivation, including weeding and thinning.
Time and manner of harvesting.
Cost of harvesting, including the storing and husking or threshing.
Amount of straw or stover.

Remarks—

From actual measurement, I hereby certify that the land which the above crop of covered, contained rods, and no more.

From personal observation, hereby certify that the above answers are true.

I hereby certify that the weight of the above crop, as ascertained by me, on the day of November, was pounds to the rod.

Member of the Com.

Crops of Corn, Grain and Beans shall be estimated as follows.

One of the Committee shall, while the crop is standing in the field, select an average rod and harvest it. He shall take home the product, and husk or thresh it. The specimens from each of the competitors shall then be placed in similar conditions, and all weighed between the 1st and 10th of November.

For estimating root crops, one of the Committee shall select an average rod, and weigh or see the same weighed.

The product in all these cases shall be taken, and deemed to be 160th part of an acre, and the member of the Committee shall sign a certificate of the amount.

These forms must be returned to the Secretary on or before Nov. 10th, with each question concerning the crop answered, and the first two certificates signed by a second person.

For the most profitable acre of Corn, (of any variety) the product to be not less than 22 pounds of shelled Corn to the square rod when weighed by the Committee, - - - -	$6,00
" second best do., - - - -	4,00
" third best do., - - - -	3,00
" fourth best do., - - - -	2,00
For the most profitable acre of Wheat, not less than 1500 pounds of grain, - - - -	4,00
" second best do., - - - -	3,00
" third best do., - - - -	2,00
For the most profitable acre of Rye, not less than 1400 pounds of grain, - - - -	3,00
" second best do., - - - -	2,00
For the most profitable acre of Barley, not less than 1380 pounds of grain, - - - -	3,00
" second best do., - - - -	2,00
For the most profitable acre of Oats, not less than 1500 pounds of grain, - - - -	3,00
" second best do., - - - -	2,00
For the most profitable eighth of an acre of Cabbages,	2,00
" second best do., - - . -	1,00
For the most profitable eighth of an acre of White Beans,	2.00
" second best do., . . - -	1,00
For the most profitable half acre of Potatoes, not less than 6000 pounds, - - - -	3,00
" second best do., - - - -	2,00
For the most profitable eighth of an acre of Carrots, not less than 5500 pouuds, - - -	3,00
" second best do., - - - -	2,00
For the most profitable eighth of an acre of Onions, not less than 2500 pounds, - - - .	3,00

For the second best do., - - - - 2,00
For the most profitable eighth of an acre of Sugar Beet, without limit as to quantity, - - - 2,00
" second best do., - - - - 1,00
For the most profitable eighth of an acre of Mangold Wortzel, - - - - - 2,00
" second best do., - - - - 1,00
For the most profitable eighth of an acre of Ruta Baga, 2,00
" second best do., - - - - 1,00
For the most profitable eighth of an acre of English Turnips, 2,00
" second best do., - - - - 1,00

FARMS.

All competitors must make their entries on or before the first day of May. Each farm will be open to the inspection of the Committee on Farms during the entire season. A detailed statement of the general management, together with the income and expenses for the year, must be furnished on or before November 10th.

For the best cultivated and managed Farm, - $15,00

GARDENS.

Entries must be made on or before June 1st.

For the best kitchen Garden, - - - 5,00
" second best do., - - - - 3,00

EXPERIMENTS.

MANURES AND CULTIVATION.

All entries must be made on or before July 1st, and a statement furnished on or before November 10th.

For the best Experiment in testing the value of different kinds of Manure, on not less than one acre of ground, as compared with each other, and with no manure; the crop to be a cultivated one, $5,00
" second best do., - - - 3,00

For the best Experiment in raising Potatoes, upon not less than one acre of land, the whole to be manured alike,	4,00
" second best do.,	2,00
For the best Experiment in raising mixed crops, upon not not less than half an acre,	3,00
" second best do.,	2,00
For the best Experiment in raising Chinese Sugar Cane,	3,00
" second best do.,	2,00
For the best Experiment in raising Millet,	3,00
" second best do.,	2,00
For the best Experiment in raising Cranberries, upon not less than one fourth of an acre,	5,00
For the best Experiment in sub-soil Plowing,	2,00
For the best Experiment in raising Sweet Potatoes,	1,00

FEEDING STOCK.

All entries must be made one week previous to commencing the experiment, and statements furnished on or before November 10th.

For the best Experiment in feeding Neat Stock,	$4,00
" second best do.,	2,00
For he best Experiment in feeding Swine,	3,00
" second best do.,	2,00

KEEPING POULTRY.

Entries to be made on or before August 1st, and statements furnished on or before November 10th.

For the best Experiment in keeping Poultry,	$2,00
" second best do.,	1,00

FRUITS AND FLOWERS.

No article intended for either of the halls, will be entitled to a Premium, unless it shall have been deposited by 2 o'clock P. M., on the day previous to the exhibition, from which time the halls will be occupied by the Committees exclusively, for the remainder of the day and evening. All articles must have been grown, manufactured or produced by the person entering the same for Premium.

APPLES.

For the best twelve varieties, limited to five specimens each, to be selected, arranged, and correctly named and labelled by the contributor, - $4,00

" second best do., - - - - 2,00

For the best six varieties, conditions as above, - - 3,00

second best do., - - - - 1,50

Any person receiving a Premium for the best twelve varieties will not be allowed to compete for the best six.

For the best dish of any variety, - - - 2,00

PEARS.

For the best twelve varieties, limited to five specimens each, to be selected, arranged, and correctly named and labelled by the contributor, - $4,00

" second best do., - - - - 2,00

For the best six varieties, conditions as above, - - 3,00

" second best do., - - - - 1,50

Any person receiving a Premium for the best twelve varieties, will not be allowed to compete for the best six.

For the best dish of any variety, - - - 2,00

PEACHES.

For the best plate, - - - - - $2,00

" second best do., - - - - 1,00

" third best do., - - - - ,50

PLUMS.

For the best plate, - - - - - $1,00

" second do., - - - - ,50

QUINCES.

For the best dish or basket, - - - - $2,00

" second best do., - - - - ,50

GRAPES.

For the best specimen, - - - - $2,00

" second best do., - - - - 1,00

" third best do., - - - - ,50

ASSORTED FRUIT.

For the best dish or basket of Assorted Fruit,	$2,00
" second best do.,	1,00

BOQUETS.

For the best Boquet,	1,00
" second best do.,	,50
In addition to the above Premiums, there will be placed at the disposal of the Committee for gratuities,	10,00

VEGETABLES.

For the best collection of Kitchen Vegetables,	$3,00
" second best do.,	2,00
" third best do.,	1,00
For the best collection of Potatoes, one peck of each variety,	2,00
" second best do.,	1,00
" third best do.,	,50
For the best six Marrow Squashes,	1,00
" second best do.,	,50
For the best six Crookneck Squashes,	1,00
" second best do.,	,50
For the best six Pumpkins,	,75
" second best do.,	,50
For the best six heads of Cabbage,	,75
" second best do.,	,50
For the best peck of Onions,	,75
" second best do.,	,50
For the best peck of Turnip Beets,	,75
" second best do.,	,50
For the best peck of English Turnips,	,50
" second best do.,	,25
For the best peck of Tomatoes,	,50
" second best do.,	,25
For the best half peck of field Beans,	,50
" second best do.,	,25
For the best two quarts of Lima Beans,	,50
" second best do.,	,25

For the best collection of Seed Corn, in traces, -	1,00
" second best do., - - - -	,75
" third best do., - - - -	,50
In addition to the above, there will be allowed for gratuities,	5,00

BREAD.

Premiums for Bread will be awarded to ladies less than twenty years of age only, and all Bread must have been baked on the Wednesday previous to the exhibition.

For the best loaf of Wheat Bread, - - -	$1,00
" second best do., - - - -	,50
For the best loaf of unbolted Wheat Bread, - -	1,00
For the best loaf of bolted Rye Bread, - -	1,00
" second best do., - - - -	,50
For the best loaf of Rye and Indian Bread, -	1,00
" second best do., - - - -	,50

BUTTER, CHEESE AND PICKLES.

Competitors will be required to furnish a detailed statement in writing of the process of manufacturing these articles.

For the best specimen of Butter, not less than 12 pounds,	$3,00
" second best do., - - - -	2,00
" third best do., - - - -	1,50
" fourth best do., - - - -	1,00
For the best specimen of Cheese, not less than 50 pounds,	2,00
" second best do., - - - -	1,50
" third best do., - - - -	1,00
For the best jar of Pickles, - - - -	,75
" second best do., - - - -	,50
" third best do., - - - -	,25

HONEY.

For the best specimen of virgin Honey, in the comb, -	$1,00
" second best do., - - - -	,50

MECHANICS AND MANUFACTURES.

For the best Buggy Wagon,	$4,00
For the best Winnowing Mill,	2,00
For the best Straw Cutter,	2,00
For the best Ox Yoke,	1,00
For the best Grain Cradle,	1,00
For the best six Scythes,	1,00
For tho best six Hay Rakes,	,50
For the best six Baskets,	1,00
For the best six Shovels,	1,00
For the best six Hoes,	,50
For the best three Hay Forks,	,50
For the best three Manure Forks,	,50
For the best Churn,	2,00
For the best Harness,	1,00
For the best three pairs Thick Boots,	1,00
For the best three pairs Thin Boots,	1,00
For the best three pairs Ladies' Shoes,	1,00
For the best specimen of Tailor's work,	2,00
For the best five pieces Tin Ware,	1,00
For the best five pieces Blacksmith's work,	1,00
For the best specimens of Edge Tools,	1,00
For the best specimen of Carriage or Sign Painting,	1,00
For the best specimen of Painting in imitation of wood or Marble,	1,00
For the best specimens of Cabinet work,	2,00
For the best specimens of Wooden Ware,	2,00
For the best specimens of Chairs,	2,00
For the best specimens of Wrapping Paper,	,50
For the best specimens of Writing Paper,	,50
For the best thirty yards Sheeting,	,75
For the best thirty yards Shirting,	,75
For the best twelve yards Broadcloth,	2,00
For the best twenty yards Cassimere,	2,00
For the best twenty yards Satinet,	1,00
For the best six dressed Calfskins,	1,00
For the best six Palmleaf Hats,	,75
For the best plain Bed-quilt,	1,00
For the best Hearth Rug,	1,00
For the best twenty yards home-made Flannel,	1,00

For the best three pairs Woolen Socks, - - ,75
In addition to the above, there will be allowed for gratuities, the sum of - - - - - 15,00

FANCY ARTICLES.

For the best specimens of Ladies' Useful and Fancy Articles, of their own manufacture, including specimens of nice mending and darning, there will be placed at the disposal of a Committee, the sum of - - $25,00

ORCHARDS.

Competitors must make their entries on or before the 1st day of June, and furnish a detailed statement of the history and management, on or before November 10th.

APPLES.

For the best Orchard, of not less than fifty trees, of any age, $8,00
" second best do., - - - - 4,00

PEARS.

For the best Orchard of not not less than twenty-five trees, set out previous to to January 1st, 1856, - $10,00
" second best do., - - - - 5,00

PROSPECTIVE PREMIUMS.

ORCHARDS.

All persons competing for these Premiums, must make their entries on or before the 1st day of June, in the year in which the Premiums are to be awarded, and furnish a detailed statement of the whole management from the time of setting out, on or before November 10th of the same year.

APPLES.

For the best Orchard of not less than twenty-five trees, all having been set out previous to Jan'y 1st, 1856, to be awarded in 1858, - - - $10,00

" second best do., - - - - 5,00

For the best Orchard of not less than fifty trees, all having been set out after Jan'y 1st, 1856, to be awarded in 1860, - - - - - $25,00

" second best do., - - - - 10,00

PEARS.

For the best Orchard of not less than fifty trees, all having been set out after Jan'y 1st, 1856, to be awarded in 1861, - - - - - $25,00

" second best do., - - - - 10,00

PEACHES.

For the best Orchard of not less than fifty trees, all to be set out previous to Jan'y 1st, 1858, to be awarded in 1859, - - - - - $10,00

" second best do., - - - - 5,00

RECLAIMED ORCHARDS.

For the best experiment in reclaiming an old Orchard, either Apple or Pear, to be awarded in 1859, $10,00

" second best do., - - - - 5,00

RULES.

No article for which a Premium has once been awarded by this Society, shall ever compete for another of the same class, except a higher one.

The several Committees will not consider themselves bound by the terms of the above offers, to award a Premium for anything which they shall deem inferior.

Any person to whom a Premium shall have been awarded in consequence of any deception or misrepresentation used by him, shall not

only forfeit such Premium, but afterward be incapable of competing for the Society's Premiums.

All persons (ladies excepted), not members of the Society, to whom may be awarded a Premium or Premiums amounting to $5,00 or upwards, shall receive a certificate of membership for $5,00, and the balance in cash. If the amount shall be less than $5,00, a deduction of fifty per cent. will be made, unless the individual chooses to make the amount up to that sum, and receive a certificate of membership.

All Premiums not demanded on or before November 30th, will revert to the Society.

COMMITTEES.

Committee on Farms.—Ezra Kendall, of Sterling; Joel Hayward, of Ashby, and Abel F. Adams, of Fitchburg.

Committee on Gardens.—Jonas A, Marshall, Nathan Upham, and Cyrus Thurston, of Fitchburg.

Committee on Experiments in Feeding Neat Stock and Swine. Jabez Fisher, and Daniel Works, of Fitchburg; and Samuel P. Gibson, of Ashby.

TRANSACTIONS

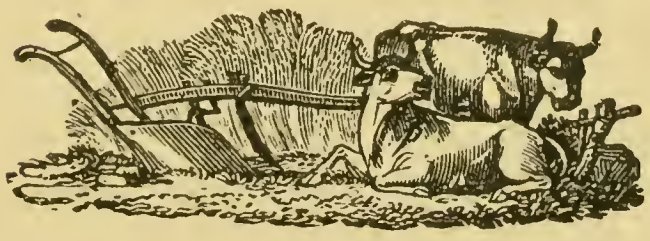
—OF THE—

WORCESTER NORTH

Agricultural Society,

FOR 1857.

PREPARED BY THE SECRETARY.



FITCHBURG:
PRINTED BY E. & J. F. D. GARFIELD,
At the Sentinel Office, 176 Main Street.
1857.

TRANSACTIONS.

The Fifth Annual Exhibition of the Worcester North Agricultural Society was held at Fitchburg, on Friday, October 2d, 1857. The clouds which wore a threatening aspect on the day previous, kindly consented to postpone their festival until after the close of ours, and although the sun did not condescend to enter himself for exhibition, yet we were consoled with the reflection that his presence was not particularly to be desired, as he would only have persisted in making people uncomfortable.

The first attraction for visitors was the Plowing-Match, which took place on land of A. P. Kimball, near the Scythe Shop, in South Fitchburg. The time set was 8½ o'clock, but owing to the non-arrival of a train of cars from towns lying west, a short postponement was deemed advisable. A particular account of the plowing will be found in the report of the committee.

At 10 o'clock commenced the trials of Working Oxen, Steers, and Draught Horses. It has always appeared to us that undue importance in these trials is given to the mere amount of force that an animal is able to exert, rather than to the intelligence with which he does it. A large pair of oxen, or a heavy horse may show very superior strength when compared with

those of smaller and lighter build, and yet perhaps not be half so worthy of commendation by reason of their want of docility and training. It is a serious question whether the use of the whip in the hands of the driver as an instrument of torture, or an exhibition of the quality of his own temper, ought not to debar him from competition.

The collection of Stock on exhibition was the largest and finest that has ever been seen in this locality. The number of Neat Stock, Horses, Sheep and Swine entered was considerably upwards of 500, and the quality shows unmistakably the influence which the holding of "Cattle Shows" exerts upon the public mind. Farmers here learn through the medium of their own senses that the difference in cost between raising good stock and poor is but trifling, while the relative value is often more than doubled. Man knows nothing except through the experience of himself or others, and at these exhibitions a very large amount of experience is brought forward for the benefit of the community, and all who wish may avail themselves of its suggestions.

The show of contributions in the Town Hall, too, gave evidence of increased care and attention paid to the matter of raising Fruits and Vegetables. There is a gradual improvement from year to year in the specimens presented. Second and third rates are slowly giving place to those of the first class. New competitors are growing up, and the time may yet come when it will not be considered an act of extravagance, or an unusual thing to have the best products of the season placed upon the tables of the multitude as a legitimate portion of the daily repast.

In the department of Mechanical and Manufactured Articles, as also in that of Fancy productions, the exhibition was rather meagre; more so than this locality deserves, and we earnestly hope that some means may be devised to bring out a more extended display in future.

The Kitchen and Dairy were well represented. Some of the specimens of Butter in particular, it would be difficult to surpass. Some portions of it actually melted in the mouth, according to our experience.

A new feature introduced here for the first time (though practised by most of the Agricultural Societies throughout the State) is that of charging the public an entrance fee of ten cents each to the exhibition within the Town Hall. The object in this case was two-fold. First, to prevent the rush which was occasioned in consequence of visits repeated many times by the same persons; and second, to gain additional means of usefulness consequent upon enlarged pecuniary resources.—Although met with objections from many persons in advance, yet most of them seemed to fear dissatisfaction on the part of others rather than for themselves. The result, however, was very gratifying. The ease and comfort enjoyed by visitors was a matter of general remark, and when it was ascertained that two hundred and eighty dollars had been taken at the door all scruples vanished away.

At half-past twelve a very respectable company sat down in the lower Town Hall, to partake of a dinner, served by Mr. Charles Fletcher, of Fitchburg. After the close of this excellent and satisfactory repast, Justus Tower, Esq., of Lanesborough, in Berkshire County, delivered a fine practical, common sense address, a con-

densed abstract of which he has kindly furnished for publication.

It was intended to fill up the remainder of the afternoon with speeches, songs and reports of committees, but although gentlemen had come with their speeches all ready, and a club had prepared a number of fine songs, glees, &c., yet the length of the reports, and the want of time, compelled the company to forego them all with a single exception. Col. Wm. G. Lewis, of Framingham, delegate from the Board of Agriculture, being called out by a sentiment in allusion to that body, replied in a very complimentary speech, and suggested one or two subjects for the consideration of the Society, one of which was the purchase of a piece of land of sufficient capacity to contain the whole exhibition, plowing and all. This lot might be fenced, and an admission fee would admit visitors to all parts of the exhibition. It is to be hoped that this matter may receive the attention of the Society.

We would take the present opportunity to throw out the idea that much time might be gained at the dinner table for the purpose of hearing from guests and others, and thus adding to the interest of the occasion, by suppressing the reading of the subject matter of the reports and allowing the Secretary to proclaim simply the awards. This would require comparatively but little time, and it is the only portion in which the audience have at the time any special interest.

The Reports of the Committees will be found to be marked with rather more ability, and to contain more practical suggestions than has sometimes been the case, and as such, we commend them to the careful attention of the reader.

ADDRESS.

Mr. President,—Ladies and Gentlemen:

How appropriate on this anniversary occasion, after a bountiful harvest has been gathered in, and the tillers of the soil of this goodly land have come up to their yearly jubilee, to have a proper sense of our obligation to our Heavenly Father, while we remember the mercies that have been strewed along our pathway the past year,—for returning Spring, Summer and Autumn; for sunshine and showers, seed-time and harvest; for preservation of life; for prosperity, benefit of friends, and social enjoyments; for the soft and gentle influences of civil and religious liberty, and the innumerable blessings that flow from our invaluable institutions, the glory of our Commonwealth.

In the returning spring what beauty opens to our vision, after the long cold winter, in which the earth was locked in chains of ice in deep repose, resting after a draft from her resources in producing a bountiful harvest, when vegetation was inanimate, as without life. The cold bleak winds have swept over our fields, purified the air, invigorated man and beast, preparatory to the approaching spring-time, when nature calls the husbandman to action. The tiller of the soil, in the full exercise of faith "in seed-time and harvest," went forth

with elastic step into the laboratory of nature, with his instruments of husbandry as seed-time approached; the plow was brought forth, the steers were yoked, the long furrow was turned with skill, the ground made ready, the opening hand scattered the seed broad cast, the corn and vegetable seeds were put into the earth, its vegetation watched with care—rejoicing in the prospective harvest of golden grain and the "full corn in the ear."

You have come up here to-day with your wives, your sons and daughters, your neighbors and the representatives of every profession, to celebrate the most important, interesting and profitable occasion that we are permitted to enjoy. We have partaken together of a rich repast, the products of your toil, and are made glad in this social interview, and cheerful greetings, beholding the yeomany of this goodly land, face to face.

It is but a few years since Agricultural Shows and Fairs have become prominent in most of the counties of our State. The spirit of the age and the importance of this great interest, has waked up the Agriculturist to united action for mutual improvement, and corporate bodies are now established in every county in the Commonwealth.

The influence of these anniversary occasions have contributed more to our vigorous growth as a community than all the golden treasures that have been poured in upon us from California. They have awakened a spirit of inquiry in the breasts of thousands of our farmers, and great good has been the result of these exhibitions of the arts of peace and usefulness.

It is not enough that we see and hear of the superior crops of grain and vegetables; it is not enough that we see the noble cow, or the songy, well-proportioned steers, with heads erect, obedient to their master's will; or the mammoth ox that has known the bounty of his master's crib; or the booby calf, that promises well to fill the footsteps of its predecessor. It is not enough to see the rich specimens of butter and cheese that adorn the Hall; the vase of flowers; the home-spun carpet; or the bed-spread, of varigated colors in squares and angles; or the exhibition of the more refined skill of embroidery, the handiwork of mothers and daughters. It is not enough to see all this. We wish to see the face of the producer, and hear the story of his skill, that the less fortunate husbandmen who are just arousing from the old beaten paths of their fathers, may become encouraged and rejoice in the skill of their more fortunate neighbors, while they imbibe a spirit of improvement. These are some of the features that endear these gatherings to all good men, and there is great reason to hope that they will be the means of perpetuating the progressive spirit of political and rural economy. May we not hope that through these and other co-operative influences that may be brought to bear upon the young farmers, those that are willing to strive by research in the science of agriculture to elevate themselves to the dignity of Nature's true noblemen, and become benefactors of our race, agriculture shall once more rank among the most honorable pursuits of man.

This leads me to speak of the position which the farmer should occupy, and how it becomes him to wake

up to the true dignity of his calling and cause it to take a high stand point among the avocations of life.

Who stands in so enviable a position as you do,—owners of the soil, and producers of the bread that sustains life? It is you that feed the teeming thousands of our Commonwealth, and their dependence is on you; you supply their most pressing wants. Agriculture is the largest and the most important of all our material relations. The largest proportion of our countrymen are engaged in tilling the soil, being three-fifths of the whole; and over three-fifths of the permanent wealth is in your hands. The prosperity of our county is based upon the prosperity of the owners and tillers of the soil. By the last census returns, two million four hundred thousand of our free male population are employed in agriculture; carpenters one hundred and eighty-four thousand; shoemakers one hundred and thirty thousand; merchants one hundred thousand. The agricultural products of a single year are estimated at over one thousand millions of dollars. When we consider the vast amount of products of the soil it takes to sustain our nation, we may well say how great is your responsibility, and how important that you should be equal to the task. The destiny of our nation is in your hands. It is you that give it permanent support. Our civil and religious institutions are nurtured by you. The march of progress in the arts and sciences depends upon the success of the tillers of the soil.

It is the wants of the agriculturist that calls for internal improvements. The sons of the New England farmers emigrate West, clear up wood-lands, break up extensive prairies, making them to yield the golden

harvest; building up villages and cities, school houses and churches. Then behold in their pathway westward are built canals and railroads, which with the lakes and navigable rivers, are all made subservient to the wants of the western farmers, to freight their produce to the Atlantic cities for a market, carrying back merchandise to supply the wants of the western emigrant. And thus the products of the western States gives impulse to every eastern enterprise, and agricultural depression or prosperity is the thermometer that marks the prosperity or adversity of individuals, communities or our nation.

How sublime, how beautiful, and how interesting to contemplate the progress of man in the cultivation of the soil, when there are so many contingencies in the great machinery of our nation depending upon yourselves. Were you to fail to produce the fruits of the earth, it would be felt in all the departments of business in every grade and rank in society, the rich and the poor alike dependent. The water-wheel and ponderous engine that now turn their tens of thousands of spindles and the weaver's shuttle would be silent; the busy hum of the city would be hushed. The iron horse that now lifts his proud head upon the Atlantic, laden as he goes through valleys and over hills and mountains; across rivers; now lost in the dense forest; then over the extensive prairies of the productive West, with his shrill whistle which marks the progress, and is sweet music to the western pioneer, would return with mournful notes of desolation. Our nation which now lifts her proud head among the nations of the earth, and is so prominent for her spirit of enter-

prise and improvement in all the departments of industry, with her streamers and stripes floating upon every ocean, sea, lake and navigable river in the civilized world, would return to their moorings, and old ocean would mourn that her bosom no longer floated the products of the earth. Our institutions of learning would feel the withdrawing hand that supports them all. The student would return to his desolate home; the professional man to his office; the merchant to his store, and would exclaim, "The earth has failed to produce and the fountain that sustained us all has dried up."

How truly then, is Agriculture the mother of all arts, the foundation and basis from which springs every other profession—the rock from whence flows a stream that waters every department of civilized life. How important appears this interest, when we look out upon the world and see the great interests of society, swelling in magnitude, increasing and progressing in every improvement, which learning, the arts and sciences, elevate and adorn, and make man prosperous and happy—with all their vitality centering in the tillers of the soil. Thus you see the important position you occupy.—Shall you not make it nonorable?

The mechanics and manufacturers are intimately connected with the agriculturist. While the mechanic invents and builds implements and machinery, the manufacturer works the fabric the farmer produces, into cloth and various other articles. Great has been the revolution in agricultural implements within the last thirty years. Inventive genius has been waked up, and it seems as though master spirits had been vying with

each other to see who should prevail in producing labor-saving implements and machinery. In comparison, it is computed that our present facilities for cultivating the earth and manufacturing our fabrics, saves five-sixths of the physical labor in producing the same results. We look upon the plow with wonder, when we compare it with the old iron share and wooden mold-board that were in use in the days of our fathers, and it would seem that the last touch was made to consummate perfection in this first and most important implement in the art of farming. Also, the harrow, the cultivator, horse-rake, mowing and reaping machines.

"A man standing on Mount Zion, Rock County, Wis., counted on the surrounding plain below, one hundred and sixty-four horse power reaping machines, cutting down wheat, and one thousand men, women and children following after binding up the golden sheaves."—This was a sight worth seeing, from one point beholding the grain falling and being gathered up at the rate of two hundred acres per hour. "On one farm in Illinois, grew a thousand acres of wheat, where there were twelve reaping machines used, and it was all stacked up in five days." Under the old system of cutting by hand, it would have required an army of one hundred men to cradle it in the same length of time; and before the hand-cradle was brought into use it would have taken five hundred men. This demonstrates the incalcuable value in saving labor by implements and machinery to the agriculturist.

This is not all the mechanic has done. Our manufacturing establishments are a wonder of the age. We see what has been accomplished, what man has wrought

by the power of application of his mind, adding wealth to our country. Behold the steamships and the iron steed that traverses sea and land with majesty, and speed, revolutionizing the world in its commercial advantages; the telegraph, with lightning speed, heralds the news from town to town, city to city, continent to continent, and expecting soon to break down the barriers of the ocean and hold converse with our mother land, and the civilized world. Are not these glorious attests of the intelligence of the age? Are not the mechanics and manufacturers far in advance of the agriculturist? This is too true, and the fact should be our admonition. We need be proud of these our legitimate children twin sisters, honorable in their efforts, linked together by a golden chain that never, never should be broken.

To the agriculturist, mechanic and manufacturer, our prosperity is the result of labor and skill. Honest and persevering labor is honorable, and sure of its reward. Labor can point to many proud memorials. The wide spread fields of cultivation, the hand of labor has done this. Labor has built our cities, our dwellings and sumptuous palaces, the walls and bulwarks of nations as a defense; the steamers and ships that traverse the ocean and float upon our lakes and rivers. Labor has built the proudest monuments of nations, and commemorated the brave deeds of illustrious names.—Wherever peace, comfort and plenty prevail, where there is progress in the arts and sciences, where civil and religious liberty find congenial hearts, may we not exclaim, "Behold the beauty, the sublimity, and the responsibility of labor.

The idea is a prevalent one among our farmers that this rural life is one of drudgery and nought but toil and weariness. This may be the case with a certain class of farmers, who are never ready to do their work in season, and consequently it is never well done. But this is not necessarily so. The thriving agriculturist is more independent than any other professor. I would not admit of an exception. He who is already rich is independent so far as money can make him. But he who owns a good farm, with comfortable dwellings, well stocked, is rich in the true sense of the word—*Nature's true Nobleman*,—independent almost beyond a contingency; not perplexed and troubled with the rise and fall of stocks, or the uncertainty of investments in speculation. His stock is a living reality; the cows, the steers, the oxen, the swine, the calves, the sheep and chickens, and the noble horse. Yes, the fields are his, the meadows, the waving grain and corn, the fruit in its season; the beautiful landscape, the pure air, the mountain streams of pure water, the beauties of the rising and setting sun. "The serene beauty of the morning shall cheer him in the commencement of his day's labor; the radiant noon shall regale him with fresh tokens of prosperity, and the night clouds shall lower around his dwelling only to woo him to soothing slumber.

There is evidently, a great misjudging in the choice of occupations for our sons, and this is a fault found at the very doors of the farmers themselves, for many of them look upon the tilling of the soil as the least desirable of all occupations. Hence there is not an abiding interest cultivated in the minds of their sons that will make them choose agriculture for a profession, but they

are educated and encouraged to seek other avocations for a living.

The professions are honorable and indispensable to the wants of business and the good of society. The divine is the messenger of "Peace on earth and good will to men." The physician holds the mysteries of the healing art to mitigate the infirmities of man. The lawyer, our counsellor and adviser, rectifying our misdemeanors, and wielding the arm of the law for the ends of justice.

In all these professions men rise to great eminence and usefulness, and we admire them for their learning and their skill. But their number is comparatively few, and the professions are most all crowded, especially those of lawand medicine. The in ducements are so small, and the chances of success being so uncertain, would it not be well for young men to stop and consider before they choose? The greatest rush of our young men is to a commercial life, where there is the greatest danger and the most shipwrecks of character and fortune. With a superficial education, young men enter our cities with high hopes of making a fortune. What are the facts? Our cities are overrun with young men from the country, (and mostly farmer's sons.) They enter the retailing or jobbing stores, on small salaries, expecting some day to be princely merchants. It will cost as much to educate a young man in a good jobbing store in the city as it will to carry him prudently through college. The scenes of vice and extravagance are before him, and too many are easily seduced; the good habits acquired at home are overcome, and but few, comparatively, rise above the capacity of clerks, and those who do, what

is true in regard to them? It has been ascertained to a certainty that of those who enter into commercial pursuits, from ninety to ninety-five out of one hundred fail in business; while of those who engage in the practice of agriculture, about ninety-six in every hundred succeed. And why is this? In the first place extravagant notions prevail among mercantile men. The amount of business done is out of all proportion to the capital employed. High rents, a large retinue of clerks, the sale of goods without proper discrimination, all tend to produce a state of things which generally brings failure, disappointment and distress upon themselves and others.

How different is agricultural life. He who is not able to purchase a farm can rent one, and is most sure of success. What he produces will always bring money. The inducements for wild speculation are not to be found. He is free from the harrassing perplexity, which is so common an attendant of commercial life.

How remarkably strange it is that so many of our sons become disgusted with rural life, leave the home of their youth, the farm that has nurtured them, forsaking the tilling of the soil for what they erroneously suppose to be an easier and more respectable calling.

Are we not satisfied that the agricultural interest is paramount to all others? Has not the time come when the Commonwealth and our nation should become more interested in the advancement of agricultural science? There is no department in all our national relations which Congress has regarded with so little favor as the advancement of agricultural science.

Seldom has there been an appropriation made, with the exception of a few hundred dollars for foreign and

domestic seeds, overlooking entirely the importance of appropriations and endowments of land or money for a higher order of schools to educate men for teachers and professors, in a science so important to our nation's best and highest interests in promoting the arts of peace.

Shall not our Commonwealth arise to her most important interest, the cultivation of the soil, wherein lies the inheritance of future generations? It is a lamentable fact that a large proportion of our lands are worn and unproductive; probably have depreciated in capacity to produce, at least one per cent. a year for the last fifty years. Our pastures and tillage lands, with a large proportion of our meadows, do not yield more than one half of what they are capable.

Although there have been added in this Commonwealth to the lands under improvement since 1840, 300,000 acres, and although the upland and other mowing lands have been increased more than 90,000 acres, or nearly 15 per cent., and the tillage lands increased more than 40,000 acres in the same period, yet there has been no increase in grain crops, but an absolute depreciation of 600,000 bushels. The pasture lands have been increased 100,000 acres, yet there has been scarcely any augmentation of neat cattle, while there has been a reduction of 160,000; and of swine, more than 17,000. This shows plainly the condition of agriculture in Massachusetts as a whole, and with an increasing population, with good markets, and every facility for improving and restoring our lands, it is truly an alarming state of things.

How appropriate is the inquiry. What are the causes that have brought about the depreciation of our soils,

and what is the proper remedy to restore them to their primitive powers?

The first reason I shall give is the general indifference to the true interests of agriculture. The great mass of farmers, and those too, who are making money, are making it at the expense of their farms, and are investing their surplus in bank or railroad stocks, instead of applying it on their lands. Another reason is, that Western lands are so cheap and accessible that our young men emigrate instead of recruiting the old farms. Is it not a fact in almost all parts of the state, where a farmer has raised a half dozen or more boys, they have either been prepared for a profession or other business, or have emigrated, not one being left to till and perpetuate the old homestead? Another reason is, that most of our farmers own too much land to till it well, and instead of dividing what they have with a son, are very apt to buy out a neighbor who wishes to emigrate or retire, and the two are sure to be miserably tilled. The manner in which farms are rented gives another reason for the depreciation of their value. Sometimes men get tired of poor farming, because poor farming won't pay, and rent their farms, asking so high a rate that their tenant is under the pressing necessity of skinning the farm to pay his rent, and then comes off with the skin of his teeth. Another, is the want of capital properly expended upon the land, buildings and fences, and in making fertilizers. The farmer cannot make any better investments. The last, and most prominent reason I shall offer, is the want of proper efforts on the part of cultivators themselves in educating and encouraging their sons to become tillers of the soil, inducing them to settle in the

neighborhood, and become systematic, thorough farmers. We have some noble exceptions. During the last twenty years there have been great advances made by many, brought about by the spirit of the age and the general intelligence that has been diffused among the people; and the call for agricultural productions at high prices has induced men to invest money in the farming interest.

The first, most important and surest means for promoting the advancement of our agricultural interest is a more thorough knowledge of the science of agriculture. It is a lamentable fact that the great mass of the farming commuuity are generally ignorant of the most profitable methods of tilling the soil. In all other professions when men are poorly qualified and unskilful,we condemn them and call them quacks, unfit to be patronized.—There are more quacks in farming than in all other professions; and too many are unwilling to alter from the old methods, but continue on, groping in ignorance without an effort to make an advance in the true art of agriculture.

A good education is a boon which all young men at the present day may possess, and if they desire a systematic, thorough, liberal education, the more thorough, the better prepared to cultivate successfully the soil. Men are intellectual beings, made for high and noble purposes and ends. There is no limit to man's attainments in knowledge; research is the nature of the mind. When properly aroused it will grasp and drink in like water every science with which it comes in contact. Men have high aspirations, and are ambitious to excel. Some have a great desire to know the world's history,and

become familiar with the rise and progress of nations, their arts and sciences, and find their enjoyment in its gratification. Others, their hearts touched with compassion, are aroused to labor in the field where benevolence opens the door of usefulness and "good will to men." Others still, love the excitement of the profession of law or medicine; while another class love the study of Nature's deep designs; the beauties of creation as seen in the vegetable kingdom. This should be the delight of the agriculturist—to study the nature of the varied products of the farm and garden, that he may be able to successfully labor in producing the fruits of the earth.

We not only want capital of wealth, but capital of mind. My idea of a happy, great and good man, is a thoroughly educated, accomplished farmer. He lives true to Nature, he is in the midst of her operations, and he observes her beautiful devlopments in every changing form. He watches the clouds and the seasons. He surveys the earth and contemplates the glories of the heavens. He breathes the pure fresh air. He eats the healthful food produced by his own toil. He drinks the pure waters gushing from unadulterated fountains. Living with nature, he contemplates the great source of her manifestations.

The hopes of progress in agriculture must rest upon its science. Who are those that have been the champions of agricultural science, and aroused so many minds to action? A Buel, a Gaylord, a Downing, a Norton and a Coleman;—and the Press too, has been a mighty engine to arouse mind and awaken thought.

What a noble field opens, calling upon the young man

to prepare himself for this great work. How few there are that have devoted themselves to it. I never knew but one graduate at a Massachusetts College who secured an education for the express purpose of practising agricultural pursuits, and he went there because there was no school where the rudiments of agricultural science were taught.

Very few educated men comparatively, represent the great interest of the farmer. This is the reason why lawyers and politicians are so often called upon to speak for this great body of our people.

Who at the present day is the thriving farmer, improving his farm, his stock, buildings displaying taste and refinement around them, giving a good impulse to the community in which he lives? Who is it that calls for the reaping and mowing machine, and improvements in the plow and all the numerous implements of the farmer? Who is it that is making experiments in fertilizers that he may restore the exhausted powers of his land? Who is it that is draining and sub-soiling and making the old worn-out pastures and meadows green and fertile? Who is it that we look up to with complacency, delight and profit, and is a benefactor in a community? It is the refined, educated, gentlemanly farmer. What encouragements here, young man, for honor, pleasure and usefulness.

Nature, how sublime are thy works! How wonderful to investigate thy mysteries! How delightful to tax the energies of the mind with honorable investigation, and that labor which has been ordained of Heaven to produce the richest fruits of earth for man and beast. Say not that the agriculturist needs no great energy

of mind. He cannot be great and useful without it. Call to your aid those means which Nature presents to you. Dig deep into the mysteries of chemistry, geology and botany. They are the agents of the agriculturist, pre-eminently above all other professions, by means of which to learn the nature of the soil, rocks, and all fertilizing agents. Be familiar with the nature of all the grains, plants, vegetables and trees you cultivate.—Learn their wants, feed them with appropriate food, and find your reward. Are you ambitious to excel in usefulness? What an opportunity in the field of agriculture for you to become great—even a benefactor.

Behold this beautiful world, adorned with such magnificent furniture. The carpet of green that is spread under your feet, decked with flowers of every hue and color, from the creeping violet to the lily's painted cup. Behold the trees, with rich clusters of fruit; the fields of waving grain; vegetables in innumerable varieties. See the little streams that dance down the mountains and water the plains, tributaries to the swelling flood that goes to fill the ocean, and serve a world. Look at the beasts of the field and the fowls of the air. Will it not take a life time to become familiar with all these productions of nature? Life is too short for man to become great in more than one pursuit. Concentrate then the energies of the mind upon this. Have you a taste for deep research? The agriculturist has much for you to do. There are many blights and diseases attendant upon vegetation. Could you discover a means of preventing the weevil or fly from destroying the wheat crop, you would save millions of bushels every year, and be a benefactor. Could you discover a remedy for

the disease of the potato, your name would be immortalized and go down to the latest generation. How extensive, how vast is the field of intellectual research, and how can you resist?

Then young men, come to the rescue of your good old Commonwealth, which the whole civilized world respects and admires for her high position, for civil and religious liberty, for her jewels that sparkle in every town and hamlet and her institutions of learning.—Come to the rescue of her agricultural interests, the paternal parent of all her greatness. Remember that he who makes an extra blade of grass to grow, or an extra bushel of wheat or corn, is a benefactor, and has lived to some purpose. He who has produced an additional flower that has laden the gentle breezes with a fragrance, has cultivated refinement in his own heart; has beautified and adorned the outward world, and lived to some purpose.

REPORTS OF COMMITTEES.

PLOWING—DOUBLE TEAMS.

The Committee on Double Teams make the following report:

There were seven entries to compete for the premiums on double teams, viz:

W. W. Watson, of Princeton, double Michigan swivel; Alonzo P. Goodridge, of Fitchburg, Michigan plow, not swivel; Nathan Caswell, of Fitchburg, Mason's Eagle swivel; Page & Shattuck, of Fitchburg, double Michigan swivel; I. & J. T. Everett, of Princeton, double Michigan swivel; N. B. Reed, of Princeton, double Michigan swivel; Downe & Hosmer, of Fitchburg, double Michigan plow, not swivel.

Soon after commencing the plowing, Mr. Watson broke his plow and withdrew his team; so there were but six teams that plowed. The ground to be plowed was a tolerably good field for the contest, though rather wet, and all the teams went to their work with spirit and energy, probably somewhat influenced in the present pinch for money, by the cash that was to be found in the last furrows of the successful competitors.

We have never seen a field plowed quicker, or the work done better; with less noise, or less using of the whip.—Most of the ground was plowed deep and thoroughly turned, and with reasonable dispatch. The Committeee instructed

the plowmen to sink their plows at least eight inches, and with the double teams a greater depth was considered meritorious.

After the most careful scrutiny of the labor of each team, your Committee were unanimous, excepting one dissenting vote, on the performance of one team, in making the following awards, viz:

Mendall G. Everett, was the plowman of the team presented by I. & J. T. Everett. He plowed his land in thirty-four minutes, and strong eleven inches deep, and performed his work in a most perfect manner. We therefore award to I. & J. T. Everett, the 1st premium of $10,00.

Alonzo P. Goodridge performed his labor with too much dispatch—being only seventeen minutes—but he plowed his land very well, though not quite so deep as some of the other teams. His plow was held by a minor. We award him the 2d premium of $8,00, and to his plowman, a minor, $4,00.

Page & Shattuck performed their labor in twenty-four minutes, with a pair of cattle and horse. To them we award the 3d premium of $6,00.

Nathan B. Reed had a capital team, and we need not say, a capital teamster, for he is No. 1; but owing to a break of the share of his plow, he could not turn his furrow perfectly smooth, otherwise he would have stood high in our awards. We recommend a gratuity to him of $4,00.

Mr. Downe plowed his land with good dispatch and tolerably well, but not quite so deep as most of the plowmen. If we had more awards at our disposal, he might have been entitled to one.

Before closing our report, we wish to present a few practical suggestions in relation to the importance of the labor of the plow and the plowman, as it lays at the foundation of the entire process of tilling the earth and preparing it to throw from its bosom annually all its rich and varied luxuries for man and beast. The plow has been used in all

ages and countries of the world, as the chief instrument to prepare the soil for its annual harvest, and must almost as necessarily precede the use of the harrow, the spade and hoe, the scythe and sickle, the rake and the fork, as the spring time must precede the growing summer, and the ripe autumn harvest.

There has been constant improvement, from the crude implement of antiquity down to the present seemingly perfect implements used in the field of to-day.

The Committee are of unanimous opinion, without wishing to make any invidious comparison of the numerous well-constructed plows of the present manufacture, that the double Michigan excels all others in thoroughly turning the soil, pulverizing its surface, and preparing it for seed. In fact, we think it about as good alone, as the common surface plow and the harrow both, for the thorough pulverizing of the soil, almost saving the use of the last implement. The thorough cutting up or crushing of all lumps in the surface of the soil, making it easily permeable to the little rootlets of the springing vegetation, cannot well be over-estimated by the practical farmer; and as the Michigan plow more thoroughly does this than any other, it must of course be of superior value, especially in breaking up the fallow ground. After a good strong team, well trained, attached to the best model of the plow, and held by a good plowman, two things are essential to the intelligent cultivation, viz: plowing to a proper depth, and thoroughly turning the entire sod of the field to a depth as low or lower as any of the grass roots have penetrated.

Till comparatively a recent date, good farmers have considered six inches to be deep plowing. We have to-day instructed the competitors to sink the plow at least eight inches, and nine or ten we have considered meritorious of our awards, everything else being equal. Now this will not appear extravagant when it is known that roots of corn descend to the depth of six feet in a soil that is sufficiently permeable. A gentleman informed us some months since,

that he found the roots of some corn planted near a cellar wall, which he removed during the vigorous growth of the stalk, at least six feet from the surface, in great abundance. The rootlets of wheat and rye penetrate in suitable soil from ten to sixteen or eighteen inches deep. Many garden vegetables sink their roots from one to three or four feet; but of course to these greatest depths, only in a permeable soil.—Then who does not see that the deeper the earth is stirred and loosened, the more thrifty and vigorous will be the growth of every vegetable planted in its bosom. Another result of deep plowing, beside giving the tender rootlets of vegetation a larger territory in which to range for their food, is giving all your crops a power to bid defiance to almost any drought that has ever occurred in New England. One of the best farmers of our State informs us that some twelve or fifteen years since he planted his corn on a dry soil, that had been sub-soiled two feet deep, and that a severe drought that destroyed nearly all the corn in his neighbourhood, was perfectly harmless to his field, and permitted him to gather a large harvest. Again, deep plowing, by loosening the soil and turning its deep strata to the effects of the sun and wind, gives it the capacity to absorb a much larger amount of the various gases of the atmosphere, that are so essential to the life and growth of everything in the vegetable kingdom.

The other essential to good plowing is, as before suggested, thoroughly turning and covering the sward. I know some farmers contend that it is better to leave the sward turned edgewise, exposed to the wind and sun. This we believe is false in theory as well as injurious in practice. All the ammonia of decomposing substances is very volatile, and a large portion of all that is produced by the rotting of the green sward, if left exposed to sun and wind, will of course evaporate and float away to give food to neighboring vegetation, whereas if covered up, it is absorbed by the soil and kept in reserve for a future crop at home. In New England the average of farmers do not plow, of fallow ground, more than one and a half or two acres in a year. It is of more

importance to them, therefore, than to the farmers on the prairies of the West, for if his all is a little all, the more important that it be husbanded in the best manner.

There are other suggestions we might make if we had time, of importance to the plowman; such as the importance of plowing in the spring instead of autumn, to save the finest and richest portions of the soil from being swept away by the winds of winter, to enrich the adjoining fields of his neighbor, or to be driven into the highway or hedges that lie near by; the importance of varying the centre of the lands of his field to keep them level; to back-furrow from the walls and hedges of his field, to prevent the accumulation there of any surplus soil, that is needed in other parts of the field; these are all topics of interest to the farmer, upon which we have not time to dwell.

In conclusion, we would say to every farmer—plow deep, manure and cultivate well, and with the ordinary blessing of Providence, you may reasonably expect that the earth will pour into your lap from her bosom a good remuneration for all your care and toil.

Respectfully submitted,

J. T. EVERETT, *Chairman.*

PLOWING—SINGLE TEAMS.

The Committee on plowing with single teams, Report:

That the number of teams entered was eleven. The land selected was the most eligible the society could obtain in the neighborhood, where so large a number of teams could be accommodated and room also afforded for the double teams. It being desirable that both kinds of plowing should be tried near each other, so that visitors could witness the oprerations of each, and compare their respective advantages.

The plowing with single teams was excellent. It was done without noise or whipping, and in so quiet a manner as to call forth a general remark from all persons present.

It is a matter of great regret to the Committee that the number of premiums at their disposal is so small. It was a very difficult matter to decide, where the relative merits of the parties were so evenly balanced. The Committee would have gladly awarded double the number of premiums, and believe them to be richly deserved, but they were obliged to make a decision, and have awarded the

First premium of $8 to Lewis G. Tuttle, of Fitchburg; time 23 minutes.

Second premium of $6 to Charles Flagg, of Sterling; time 33 minutes.

Third premium of $4 to W. W. Watson, of Princeton; time 27 minutes.

Fourth premium of $2 to Samuel Farwell, 2nd, Fitchburg; time 27 minutes.

The Committee recommend a gratuity of $2 to Mason Farwell, of Fitchburg, a minor, for his skilful management of his team and plough.

It will undoubtedly be a matter of remark that no premium was awarded to either of the horse teams. The Committee regret much that it was not in their power to do so. The team of Mr. Jonathan Whitman made the best time, the work was exceedingly well done, but he had a driver. The team of Mr. John Brooks, Jr., performed its work most admirably and within excellent time, but the plowing was not quite so deep as the requisition prescribed.

The Committee feel bound to recommend to the Society hereafter to make special provision for horse teams, in which they should be tested by a comparison with each other, and not with oxen.

All of which is respectfully submitted.

J. W. MANSUR, *Chairman.*

BULLS.

The Committee on Bulls have attended to the duty assigned them, and were unanimous in awarding the Society's premiums, as follows:

To Nathan Danforth, of Princeton, the first premium of $6,00
" Daniel Works and others, of Fitchburg, the second premium of 4,00
" John Brooks, Jr., of Princeton, the third premium of 2,00

All which is submitted by your Committee,

JOEL HAYWARD, *Chairman.*

YEARLING BULLS AND BULL CALVES.

The Committee on Yearling Bulls and Bull Calves make the following report:

YEARLINGS.

The first premium was not awarded.
To Asa Raymond, of Fitchburg, the second premium of $3,00
" John Brooks, Jr., of Princeton, the third premium of 2,00

BULL CALVES.

To John Brooks, Jr., of Princeton, the first premium of 4,00
" Sewall G. Mirick, of Princeton, the second premium of 3,00
" Joseph Upton, of Fitchburg, the third premium of 2,00

W. L. BROWN, For the Com.

MILCH COWS AND MILCH HEIFERS.

The Committee on Milch Cows and Milch Heifers having attended to the duty assigned them, submit the following report:

Of all animals that conduce to the happiness of man, the cow deservedly ranks among the first. When we consider how much she adds to our comforts, how dependent we are upon her for many of the luxuries of life, we can but wonder that so little attention is given to the improvement of her species by a large portion of our farmers.

It is frequently the farmer's ambition to keep a large number of cows, without especial regard to their quality. This we believe is a great mistake. The care and keeping of a good cow usually costs no more than one of an inferior quality; while the income of the former may be double that of the latter. The great disparity observed in the profits of different cows, we believe is frequently owing quite as much to a difference in treatment as it is to blood. Not that we would be understood as speaking disparagingly of the efforts of those who have sought to improve our native cow by a cross with imported stock. While we acknowledge that great improvement has been made in that particular, we also regard a proper treatment of the cow of vital importance in imparting good milking properties.

It is usually the case where a family possesses but one cow, that she is considered above the average of cows in point of excellence. Now why is it so? Is she not in most cases taken from the farm from a lot of cows, where the seller is generally shrewd enough to retain the best and part only with those he considers below an average? To us the reason is obvious. The seller sold the ordinary cow, but he did not sell her future keeping. Usually a great change is produced in the quality of the cow by better care and treatment. She is transferred to a warm stall, furnished with good bedding; in short, is considered a kind of a pet by their family, where every one has a kind word and a

good bite in the form of a crust of bread or some other dainty, for which she never fails to make a good return in an increased flow of milk. We do not wish to be understood that all cows will become good milkers with the best of care; but we *do* believe that all may be very much improved; and that if it will pay to give cows ordinary care, it will certainly pay *much better* to give them good care and keeping.

Being well aware of the just estimation in which this important and interesting branch of the farming economy is held by the community, your Committee have not regarded the responsibility entrusted to them lightly, or of minor importance. And it has been their desire to enter upon their duties without any bias in favor of, or prejudice against any competitor; but simply to award to the owners thereof, for the several best animals coming within their province to examine, such sums as have been placed at their disposal.

The Committee found entered for premiums, including milch cows and heifers, 28 animals,—first class 13, second class 5, third class 10. And they are happy in saying that in point of excellence they have on no fomer occasion been excelled if equalled. They would gladly speak in detail of the excellent qualities which many possessed, but time and circumstances would not permit. The Committee found it extremely difficult in many instances to determine which, for their peculiar merits, were most entitled to the preference. But after a thorough examination and mature consideration, agreeed upon the following awards:

MILCH COWS.

For the best milch cow, to John Brooks, Jr., of Princeton, the first premium of $6,00

For the second best, to J. P. Reed, of Princeton, the second premium of 5,00

For the third best, to N. B. Reed, of Princeton, the third premium of 4,00

MILCH HEIFERS, THREE YEARS OLD.

For the best milch heifer, to Henry Boyles, of Princeton, the first premium of 5,00

For the second best, to John Brooks Jr., of Princeton, the second premium of 4,00

For the third best, to Nathan B. Reed, of Princeton, the third premium of 3,00

For the fourth best, to W. W. Watson, of Princeton, th fourth premium of 2,00

MILCH HEIFERS, TWO YEARS OLD.

For the best milch heifer, to Joel Page, of Fitchburg, the first premium of 5,00

For the second best, to I. B. Woodward, of Fitchburg, the second premium of 4,00

For the third best, to W. W. Watson, of Princeton, the third premium of 3,00

For the fourth best, to John Brooks, Jr., of Princeton, the fourth premium of 2,00

There were others present, among which they will note the following: Three cows, entered by Cyrus Goodrich, of Leominster; one by John R. Learnard, of Westminster; one by Geo. M. Gregory, of Princeton; one by Benj. Snow, Jr.; one by M. Upton, and one by Abram S. Dole, of Fitchburg. There were, also, several very fine heifers. One by Gardner Merriam, of Leominster; one by Ivers Phillips, and one by W. C. Upton, of Fitchburg, all of which were an honor to the occasion, and to their owners, and had it been in our power to have awarded them all a gratuity it would have been done cheerfully. But your Committee believe that the mere premium offered is not, in many cases, the object most sought for by the competitor; but the higher and nobler purpose of improving the various products of the farm. And many of them have on this occasion added to their already high and well-earned reputation for agricultultural improvements.

There were also entered for exhibition only, one cow by Thomas Upton; one by David Lowe, and one by W. A. Crehore, all of Fitchburg, which were very excellent animals, and reflected great credit upon their owners.

All which is respectfully submitted,

OHIO WHITNEY, Jr., *Chairman.*

John Brooks, Jr.'s Statement.

I have three animals that I enter under this head, viz:

No. 1. One cow, *White Belly;* she is 6 years old, has been kept with a dairy of 11 others. Dropped calf on the 25th of June, which I sold at 5 weeks old for veal for $7,50. She was dried the last of May, 1857; she calves the last of May, 1858. She has had no food in addition to pasture, except after the 28th of August, 1857. She had been turned after milking with my other cows, nights, into a mowing; she has not run in the mowing at all in the day time.

Time of milking 6 o'clock, morning and evening.

Her daily flow of milk the first 7 days of August was as follows, viz:—August 1st, 44 lbs; 2nd, 44 lbs; 3rd, 44½ lbs; 4th, 44 lbs; 5th, 44½ lbs; 6th, 44 lbs; 7th, 44½ lbs. Whole weight, 309½ lbs.

Her daily flow of milk the first 7 days of September was as follows, viz:—September 1st, 44 lbs; 2nd, 43¼ lbs; 3rd, 41¾ lbs; 4th, 43 lbs; 5th, 45 lbs; 6th, 44 lbs; 7th, 44½ lbs. Whole weight, 306½ lbs.

The amount of cream the first 7 days of Aug. was 28 lbs.
" " butter " " " 11 lbs.
" " cream " " Sept. was 28 lbs.
" " butter " " " 12 lbs.

Total, cream 56 lbs; butter 22 lbs.

Her weight is 1010 lbs.

No. 2. The 3 years-old heifer, *Susan*, that I enter for the best 3 years-old is Devon; she has had the same keeping as No. 1. Dropped calf Feb. 14, 1856, which I sold at 15 weeks old for $18,00; it was her first calf.

Her daily flow of milk was as follows, viz:—June 1st, 21¾ lbs; 2nd, 22 lbs; 3rd, 22½ lbs; 4th, 23 lbs; 5th, 22½ lbs. 6th, 22½ lbs; 7th, 22 3-4 lbs. Whole weight, 157 lbs.

September 1st, 17½ lbs; 2nd, 20½ lbs; 3rd, 20¾ lbs; 4th, 20 3-4 lbs; 5th, 21 3-4 lbs; 6th 20¾ lbs; 7th, 21 lbs. Whole weight, 143 lbs.

The amount of cream the first 7 days of June was 16½ lbs.
" " butter " " " 7¾ lbs.
" " cream " " Sept. was 17 lbs.
" " butter " " " 8 lbs.

Total, cream 33½ lbs; butter 15 3-4 lbs.

Her weight is 890 lbs.

No. 3. The Devon heifer, *Alice*, is 2 years old; has been kept the same as the above. She has had two calves; she dropped one June 1st, 1856, (which I enter as a yearling bull.) She also dropped a calf May 2nd, 1857, which one I sold at 3 weeks old for $4,00.

Her daily flow of milk was as follows, viz:—June 1st, 15¼ lbs; 2nd, 15 lbs; 3rd, 15½ lbs; 4th, 15½ lbs; 5th, 15¾ lbs; 6th, 15¼ lbs; 7th, 15¾ lbs. Whole weight, 108 lbs.

September 1st, 15 lbs; 2nd, 15½ lbs; 3rd, 14¾ lbs; 4th, 15 lbs; 5th, 15½ lbs; 6th, 15 lbs; 7th, 15½ lbs.

Her amount of cream the first 7 days of June was 11 lbs.
" " butter " " " 7½ lbs.
" " cream " " Sept. 11¾ lbs.
" " butter " " " 7½ lbs.

Total cream 22¾ lbs; butter 15 lbs.

Her weight is 749 lbs.

Joseph P. Reed's Statement.

Gentlemen: The cow, *Fanny*, which I offer for premium, is six years old, of Holderness and Ayrshire breed, raised in Princeton by myself.

Time of last calving, January 14, 1857. Quality of the calf, good; heifer; am raising it. Last dried in Nov. 1856. Time of next calving, January 1858. Keeping, nothing but pasture feed.

Weight and quantity of milk, beer measure, first week in June:

June	1st,	morn'g	18,00	lbs,	7,20	quarts;	even'g	21,00	lbs,	8,40 quarts.
"	2nd,	"	16,25	"	6,50	"	"	20,00	"	8,00 "
"	3rd,	"	16,00	"	6,40	"	"	20,00	"	8,00 "
"	4th,	"	15,75	"	6,30	"	"	21,25	"	8,50 "
"	5th,	"	16,00	"	6,40	"	"	20,00	"	8,00 "
"	6th,	"	17,25	"	6,90	"	"	19,25	"	7,70 "
"	7th	"	15,50	"	6,20	"	"	20,00	"	8,00 "
			114,75		45,90			141,50		56,60
								114,75		45,90
Total								256,25		102,50

Her milk the first week in June averaged 36 17-28 lbs, measuring 14 9-14 quarts per day.

Weight and quantity of milk, beer measure, for the first week in September.

Sept.	1st,	morn'g	15,25	lbs,	6,10	quarts;	even'g	18,00	lbs,	7,20 quarts
"	2nd,	"	15,25	"	6,10	"	"	17,75	"	7,10 "
"	3rd,	"	15,25	"	6,10	"	"	17,50	"	7,00 "
"	4th,	"	14,75	"	5,90	"	"	17,50	"	7,00 "
"	5th,	"	12,75	"	5,10	"	"	19,25	"	7,70 "
"	6th	"	14,50	"	5,80	"	"	17,25	"	6,90 "
"	7th	"	14,75	"	5,90	"	"	17,00	"	6,80 "
			102,50		41,00			124,25		49,70
								102,50		41,00
Total								226,75		90,70

Average weight per day 32 11-28 lbs, measuring 12 67-70 quarts, a small fraction less than 13 quarts daily; eight months after calving, and 4 1-2 months before calving again.

When on trial we did not set all her milk for butter, as we had to use out of it for the family; her milk is of superior quality. We have made and sold 154 lbs of butter after using what milk and butter we wanted in the family.

Said cow has had nothing but pasture feed, she has never had meal or roots; has always been wintered upon straw, husks, poor and good hay.

Nathan B. Reed's Statement.

The cow I offer for premium is four years old, of the Devon and native breed. She calved last march; will calve again in February next. The amount of milk given in June, the first 7 days was 279 lbs, on an average 39 6-7 lbs a day. The first 7 days in September she gave 225 lbs of milk, averaging 32 1-7 a day. Her keeping in the winter was hay straw and husks; she never had any meal. Common pasture has been her feed, at the distance of half a mile.—Since the 1st of September she has had a small quantity of fodder corn once a day. Her milk has not been churned separate, but is of the best quality.

Henry Boyles' Statements.

I hereby certify that the heifer which I offer for premium, gave the first seven days in June, 203 lbs of milk, from which was manufactured 6 lbs 14 oz of butter; and in the first seven days in September she gave 173 lbs of milk, from which was

made 6 lbs of butter. She calved March 29th; her calf was raised and taken from her at six weeks old. She was kept on hay during the winter, with the addition of a few roots in common with my stock (23 head); watered twice a day, and curried once. During the summer she has been kept with my dairy stock, consisting of 9 cows and heifers, in the same pasture the whole time, with no additional feed what ever. Time of milking near sunrise and sunset.

I hereby certify that the heifer I offer for premium, gave in the first seven days, commencing the 9th of June, (her calf not being taken off in season to commence with the first,) 204 lbs of milk, from which was made 7 1-2 lbs of butter; and in the first seven days in September 170 lbs of milk, from which was made 6 1-4 lbs of butter. She calved April 26. Her calf, which was raised, was taken from her at six weeks old. During the winter she was kept on hay, with the addition of a few roots in common with my stock (23 head); watered twice a day and curried once. During the summer she has been kept with my dairy stock of 9 cows and heifers, in the same pasture the whole time, with no additional feed whatever. Time of milking near sunrise and sunset.

Nathan B. Reed's Statement.

The heifer I offer for premium is three years old last May, of Holderness and Ayrshire breed. She did not calve until July 6th. No trial of her milk was made until September; she gave the first seven days in September 266 lbs of milk, on an average 38 lbs a day. Her keeping has been pasture, and fodder corn once a day since the 1st of September.

Wm. W. Watson's Statement.

The heifer which I offer for premium was three years old the first of last June, and she calved the first of last June, and calves in April again; and gave the last seven days in June 249 lbs of milk, which made 14 3-4 lbs of butter.

The first week in September she gave 182½ lbs of milk, which made 10 1-3 lbs of butter; her keeping nothing but pasture.

Joel Page's Statement.

The heifer which I offer for premium is two years old; she came in on the 25th of April. The first seven days in June her average per day was 25 lbs of milk, of which was made 8 1-4 lbs of butter.

The first seven days in September the average was 20 1-2 lbs per day, of which was made 6 1-4 lbs butter. She is 7-8 Durham.

Isaac B. Woodward's Statement.

The heifer I offer for premium was two years old last April; she gave her first milk June 11th. After one week, or on the 19th, we commenced weighing it, (and set it by itself, as is my practice with heifer's milk, to know if they are worth keeping,) and she gave in seven days 190 lbs 12 oz., and made 7 lbs 7 oz of butter. She gave milk as follows:

June	19th,	morning	12	lbs	4	oz.;	evening	15	lbs	00 oz.
"	20th,	"	11	"	4	"	"	16	"	00 "
"	21st,	"	11	"	12	"	"	15	"	12 "
"	22nd,	"	10	"	10	"	"	15	"	6 "
"	23rd	"	11	"	10	"	"	15	"	2 "
"	24th,	"	12	"	2	"	"	16	"	10 "
"	25th,	"	11	"	10	"	'	15	"	10 "

During the first week of September she gave 118 lbs 14 oz. She had feed only with the cows in the pasture in June. In September she had fodder-corn once a day; never has had any meal, having always been kept in a common manner. My pasture is rather moist than sweet, which made it unfavorable this past wet season; but there is *one* thing in my favor, I do not own any meadow to poison my cows.

I know not what to call my heifer, only the *Native breed.* She is to come in, April 9th, 1858.

TWO-YEARS-OLD AND YEARLING HEIFERS.

The Committee on Two-years-old and Yearling Heifers have attended to the duties assigned them, and beg leave to submit the following awards :

To John Brooks, Jr., of Princeton, for his two-years-old heifer, $\frac{7}{8}$ Ayrshire, the first premium of $4,00

" Sewall G. Mirick, of Princeton, for his two-years-old heifer, Durham and Native, the second premium of 3,00

" Henry Boyles, of Princeton, for his two-years-old heifer, Devon, Holderness and Native, the third premium of 2,00

Your Committee also award the following premiums for Yearling Heifers:

To John Brooks, Jr., of Princeton, for his yearling heifer, $\frac{7}{8}$ Ayrshire, the first premium of $3,00

" Abel F. Adams, of Fitchburg, for his yearling heifer, 1-2 Durham, the second premium of 2,00

" Benj. Safford, of Fitchburg, for his yearling heifer, Ayrshire and Native, the third premium of 1,00

Your Committee found a large number of entries in both classes of heifers, and they regret there was no more premiums at their disposal. The difficulty was, not who should have the premiums, but who should not.

All which is respectfully submitted,

J. M. STEVENSON, *Chairman.*

HEIFER CALVES.

The Committee on Heifer Calves under one-year-old have attended to the duty assigned them, and would submit the following Report:

We find some thirty entries of animals of this class, most of them present, and very many of them of rare promise, giving evidence of increased attention to this important branch of farm economy, which is truly gratifying to your Committee. But we must proceed to specify those most worthy the Society's premiums, and award the first premium for calves not raised by hand, to W. W. Watson, of Princeton, $3,00; the second of $2,00, and the third of $1,00 to John Brooks, Jr., of Princeton. For the best calf raised by hand, we award the first premium of $3,00 to Cyrus Goodrich, of Lunenburg; the second of $2,00 to A. P. Kimball, of Fitchburg; and the third of $1,00 to Sewall G. Mirick, of Princeton.

All which is respectfully submitted.

JOSEPH WHITNEY, *Chairman.*

WORKING OXEN.

The Committee on Working Oxen submit the following Report.

There were seventeen yokes of oxen reported to us as competitors. The labor performed by the teams was done in a very creditable manner, and the Committee award the following premiums:

The first to Nathan B. Reed, of Princeton, for his four-years-old,	$7,00
The second to Samuel Farwell, 2nd, of Fitchburg, for his four-years-old,	6,00
The third to Lewis G. Tuttle, of Fitchburg, for his seven-years-old,	5,00
The fourth to Wm. W. Watson, of Princeton, for his four-years-old,	4,00
The fifth to Walter Whitney, of Fitchburg, for his seven-years-old,	3,00
The sixth to Samuel Shattuck, of Fitchburg, for his four-years-old,	2,00

I am directed by the Committee to mention the subject of whipping. They regret to say, that in some instances there was too much of it. The Committee are of the opinion that cattle can be trained to do their work better without the constant use of the whip, than with it. They are of the opinion that the greater portion of whipping is done without reflection, and ought to be dispensed with.

Your Committee would observe that the teams presented for their inspection are unlike *some* of the teams in all of the political parties of the present day. Although they manifested a desire in all their drawings, hawings, geeings and backings, to be obedient to their masters, yet they did not turn their yokes.

All which is respectfully submitted.

JOSEPH DAVIS, *Chairman.*

STEERS.

Your Committee, appointed to examine and award premiums upon Steers of three-years, two-years and trained Steers respectively, have attended to that duty and report:

There were eight entries of three-years-old steers, all of which were excellent, and had received good training, so as to be very well broke to the yoke, and for color, symmetry of form and good matches, can seldom be excelled, or even equalled in that number of pairs. But your Committee found that although all performed well, there was a difference in the perfection and the ease with which they performed their several tasks. There was not much choice in their drawing, but in backing there was a great difference, and as this is considered a very essential qualification in a yoke of oxen, it was made more of a test than the draft. Mr. Josiah Page's steers exhibited as near to perfection as is often witnessed in cattle of any age or weight. We therefore award him the first premium of $4,00; and to Henry Boyles, of Princeton, and Joel Hayward, of Ashby, the remaining premiums of $3,00, and $2,00 for competing next in degrees of excellence.

Of two-years-old steers, ten pairs contended for premium, and three were for exhibition only. It was an array of a rising generation of oxen in miniature, that bid fair to eclipse their predecessors, if their future is sustained by good training, good keeping, good treatment and proper development as well as their present justifies us in predicting of them. Your Committee would gladly have given premiums to all, for all seemed to claim the utmost approbation. In these steers was evinced the care that had been taken to blend the different breeds of Devon and Durham with the Native, in order to produce the best race of grades to be attained; and in awarding the premiums, preference was had to the promise of future usefulness, rather than to future size or beauty. No department of our show is of more importance than this, for unless we have good steers we can

have no good oxen. Your Committee had still another office to fulfil, viz: to judge of trained steers. There was no competition in this department, as there was but one pair of one-year-olds entered. But they were truly worthy of much commendation for the perfection to which they had been brought, being just as manageable out of the yoke as in it, and each as much at home on one side as the other, in fact performing anything required of them. The steers entered were owned by William W. Benson, of Princeton, a minor, to whom we award the premium of $3; and in consideration of the peculiar, and in these days very singular circumstances in which he presents himself to our notice, we recommend a gratuity of $5, two in money and three in books, to be selected and presented by the President and Secretary of our Society, in order to encourage him in the laudable and very useful pursuit to which he devotes himself and his hard earnings. Training streers may seem a very simple and common place affair, but there is no more important, useful, or indeed more profitable department in raising stock. Well broke oxen are vastly more valuable than those which are merely made to go from fear of the lash, as is too often the case, aside from preventing the vexation, ill feeling, much pounding and some swearing that is caused thereby. The idea that cattle are susceptible of training, that they are sensible of kind treatment, and that they have good qualities and dispositions that may be developed instead of bad ones, is becoming more and more apparent, as men take more pride in their good looks and condition, as well as their performances; and as this increases, more care and attention will be paid to matching, thus increasing their beauty as well as their value and usefulness.

The award of the Committee on three years old, two years old and trained Steers, is as follows:

THREE YEARS OLD.

To Josiah Page, of Westminster, the first premium of $4,00
" Henry Boyles, of Princeton, the second premium of 3,00
" Joel Hayward, of Ashby, the third premium of 2,00

TWO YEARS OLD.

To Nathan B. Reed, of Princeton, the first premium of $3.00
" E. G. Mirick, of Princeton, the second premium of 2.50
" Maynard Loring, of Sterling, the third premium of 2,00

TRAINED STEERS.

To W. W. Benson, of Princeton, a premium of $3,00

EZRA KENDALL, *Chairman.*

YEARLING STEERS AND STEER CALVES.

The Committee on Yearling Steers and Steer Calves, submit the following award of premiums, viz:

To Wm. W. Benson, of Princeton, best pair of yearlings, $3,00
To W. W. Watson, of Princeton, second best pair of yearlings, 2,00
To Edwin D. Works, of Ashburnham, the third best pair of yearlings, 1,00
To W. W. Watson, of Princeton, best pair of steer calves, 5,00
To Daniel Works, of Fitchburg, second best pair of steer calves, 3,00
To Josiah Page, of Westminster, third best pair of steer calves, 2,00
To Nathan B. Reed, of Princeton, fourth best pair of steer calves, 1,00

The Committee found twelve pairs of yearlings, and a single one entered for premium, and eight pairs of steer calves, all of good, and some of very superior quality. The past has been a very favorable season, and this branch of stock showed its results; as also the improved breeds and

better methods of raising cattle adopted by our farmers of late years. Still there would seem, from the great and increasing deficiency in the supply of neat cattle to meet the demand, to be a call for greater efforts on the part of farmers. And while it is not to be expected that the great mass of New England farmers can engage in raising high bred, fancy stock for pleasure or ornament to the farm, every man who engages at all, (as every good, practical farmer should as a source of annual income, and as a means of replenishing his exhausted lands,) in raising so important a production as neat cattle, can do something towards elevating the general character of those animals in our midst. The great agricultural interests of New England, and some of the other older States, being generally in the hands of men of moderate means, and consequently a limited area of land, their efforts in this useful branch of husbandry must necessarily be directed to practical and profitable results. And to this end the farmer, who attempts to raise this kind of stock, will of course have one of two objects in view, viz: to supply the stall, or the yoke, because these are the great practical uses for which steers and oxen are wanted at the present day.

Now, if the farmer would raise stock successfully for either of the purposes above named, after having determined to engage in the business, he should never commence till he has first definitely fixed in his own mind the object for which his steers shall be raised—whether for the stall or the yoke; nor until he has learned, so far as he may be able, what qualities are required in the animal to best adapt it for the purpose designed. Having done this, he should determine upon some plan or system by which to be governed, and then go to work diligently to carry out that plan, just as the skilful mechanic when he would construct a good house or any thing else, first ascertains what qualities are required to constitute a good article of the kind desired, and then lays out his plan to secure those qualities, taking care always to obtain the most approved plan at the beginning; so the would-be successful stock rearer should be careful in ma-

turing the plan of his work, and having once adopted it abide by it, till successful, or he has found by experience that it is wrong.

Every farmer engaging in this business, acting upon the the known law of reproduction in nature, "that like produces like," with improvement by proper nurture and cultivation, should ever select animals, both male and female, from which to raise his stock, possessing in the highest degree practicable, those qualities required by the object to which it is to be devoted; and having obtained his young animals, should commence at *once* to perfect them according to the plan adopted, and not wait till the first year, the most important part of the life of the animal, for a healthy start toward perfection has passed away, and they perhaps stunted for ever, as is too often the case.

It is rare that very inferior animals at one year old of this kind ever attain to any high degree of perfection, any more than vegetation which is puny when the season is a third gone. Such may, in some instances, be the case, but they are exceptions to the general rule, and should never be relied upon by the farmer who would be certain of success.

No production of the farm makes a more sure or larger return for the expenditure than neat stock, nor is any production of more importance to the consumer. Think for a moment of the almost absolute necessity for leather made from the hides of these animals, yet this use is considered of but secondary importance, compared with the meat for food. The faithful ox too as a draft animal could hardly be dispensed with in civilized society; nor could we well do without the strong, substantial and permanent manure made by these animals to fertilize our exhausted fields. The Committee have been led to these remarks in view of the importance to the stock raising farmers, of the subject of systematizing their efforts in this direction, and thereby concentrating their energies upon the particular object desired, and greatly multiplying their chances of success.

All which is submitted.

CHARLES H. MERRIAM, *Chairman.*

TOWN TEAMS.

The Committee appointed by the Trustees of the Worcester North Agricultural Society, to award the premiums of the Society for the best Town Teams, submit the following as their Report:

The Society offers for the best ten yokes of working oxen from a single town $20,00; and for the second best $10,00; requiring of the Committee if any town presents more than ten yokes, to designate which ten shall receive the premium.

There were but two teams presented for the inspection of the Committee, one from Sterling of 14 yokes, and one from Leominster of 24 yokes.

After an examination of both teams as carefully as they they were able, the Committee were unanimous in awarding to the town of Sterling the first premium of $20,00; and designate the following persons as the owners of the ten best yokes, viz: Joseph Whitney, Silas Stewart, Foster Harris, Uriah Kilburn, Charles Flagg, J. M. Stevenson, Joel Pratt, Silas Buss, Moses Sawyer, 2d, and Putnam Sawyer.

And to the town of Leominster, the second premium of $10,00; and designate the following persons as the owners of the ten best yokes, viz: Ephraim Buss, two yokes, Alvin Colburn, Andrew Houghton, Pelatiah Sheldon, Geo. Woods, Charles C. Boyden, two yokes, Joseph Pierce, and Leonard Burrage.

Allow the Committee to speak of some of the advantages of having vigorous and well-trained oxen. As plowing is an important branch in farming, it is desirable that oxen should be trained for this particular service. A pair of oxen trained will plow more and plow it better without a driver than with one, thus saving the time of one man. Again, a man goes to the woods, and with a pair of well-trained oxen, he accomplishes with comparative ease, what four men with an ungainly pair of oxen would with difficulty perform. Also, in drawing stone it is desirable that oxen should be

trained to start and stop at the word, as much time and hard lifting would be saved thereby; three men might work half an hour to regain what was lost by a single step too far. And in the hay field we have seen men carrying hay on the fork three or four rods for want of a pair of oxen that were entirely under the control of the driver, thus wasting his own time as well as that of the loader and the man who rakes after. Perhaps by these delays a load of hay is caught in a shower, and a dollar or more is expended in re-drying it, and there is also a depreciation in value of from one to three dollars in a ton. These cases, and such as these, might be multiplied (from one end of the year to the other;) and yet many of our farmers seem to think that twenty-five or thirty dollars in a pair of working oxen would undo them, but we believe it would be more than saved by their extra labor in a single year.

SOLON CARTER, *Chairman.*

FAT CATTLE.

Your Committee were well pleased with the stock which was under their examination, and took into consideration the expense of feeding, &c., in making their awards.

Your Committee saw fit to award

To W. W. Watson, of Princeton, for the best fat ox, the first premium of $8,00

To Joel Hayward, of Ashby, for the second best fat ox, the second premium of 5,00

To John M. Stevenson, of Sterling, for the third best fat ox, the third premium of 3,00

FAT COWS.

To Francis Buttrick, Jr., of Fitchburg, the first premium of 6,00

To Joshua T. Everett, of Princeton, the second premium of 3,00
To Israel Everett, of Princeton, the third premium of 2,00

FAT STEERS.

To W. W. Watson, of Princeton, the first premium of 5,00
To Mrs. Mary Hager, of Westminster, the second premium of 4,00

CHARLES H. WRIGHT, *Chairman.*

HORSES.

The Committee on Horses make the following report :

The first premium of $6,00, is awarded to W. W. Comee, of Fitchburg, for the best stud horse.

The second premium of $3,00, is awarded to Luther Hodgman, of Ashby.

Wm. M. Pride, of Fitchburg, exhibited a fine black Morgan. The Committee recommend that he be paid $2,00, as a gratuity. The Committee desire to say that Mr. Chase, of Templeton, had a fine bay horse, *Geo. Washington*, for which they recommend that he be paid a gratuity of $2,00. The entry was not made in time, according to the rules of the Society.

DRAFT HORSES.

The first premium of $5,00, is awarded to Walter Whitney, of Fitchburg.

The second premium of $3,00, is awarded to Thomas Upton, of Fitchburg.

James P. Putnam, of Fitchburg, had a fine pair of black draft horses. The Committee, recommend that he be paid a gratuity of $3,00.

Dr. Fisher, of Fitchburg, entered a pair of mules which showed great strength for draft.

BREEDING MARES.

The first premium of $5,00 is awarded to Israel Longley, of Shirley.

The second premium of $3,00, is awarded to J. T. Dinsmore, of Lunenburg.

All of which is respectfully submitted.

JOHN K. GOING, *Chairman.*

THREE AND TWO-YEARS OLD COLTS.

There were 6 three-years old colts, and 12 two-years old colts entered for premium. There were several others exhibited which were not duly entered, and were not examined by the Committee.

The Committee feel compelled to say that there is among breeders of horses, great evidence of inattention to the *stock* from which colts are raised. Some of the colts presented for our inspection were large and well formed, but logy and without spirit, and gave evidence of an unfortunate cross of sire and dam. A pure blooded horse should always be selected as a sire, if they can be found—and the *cross breeds* or *scrub races* should be avoided as much as possible. The purity of the blood of the dam is also very important; and it should be borne in mind that the size and beauty of a mare is not always so sure a guaranty of her bearing good colts, as her own *purity* or *predominance of stock.* It is a law of generation, abundantly proved in the raising of horses, that the *highest* and *most intensified vitality* will bestow a preponderating character upon the offspring. This law should be observed and obeyed in breeding horses. Those animals whose vitality has been enfeebled by frequent crossings, and who possess no pure marks of any valuable breed, ought to be withheld from generating. This is a very important subject, and we would urge it upon the Society as greatly conducive to the pecuniary interest of breeders.

A poor colt is poor property, while a good colt, of a pure blood, is the most profitable kind of stock to be raised by a farmer. We say then, to all farmers, improve your breed of horses, and let no misjudged economy deter you from availing yourselves of the purest thorough-bred horses from which to raise your colts. The Committee award to

Allen B. Wood, of Westminster, for the best three-years old colt $4,00

Henry B. Jones, of Townsend, for the second best three-years old colt 3,00

James Putnam, of Lunenburg, for the best two-years old colt 4,00

Solomon F. Towne, of Westminster, for the second best two-years old colt 3,00

Respectfully submitted,

ALFRED HITCHCOCK, *Chairman.*

YEARLING AND SUCKING COLTS.

The Committee on Yearling and Sucking Colts have attended to the duty assigned them, and beg leave to offer the following report:

The whole number of yearlings entered was seven.

The first premium of $3,00, we award to Franklin Nourse, of Sterling.

The second premium of $2,00, to Timothy Brown, of Westminster.

The whole number of sucking colts entered was twelve.

The first premium of $3,00, we award to Daniel Miles, of Westminster:

The second premium of $2,00, to J. T. Dinsmore, of Lunenburg.

The third premium of $1,00, to Israel Longley, of Shirley.

All of which is respectfully submitted.

SEWALL RICHARDSON, *Chairman.*

SWINE.

The Committee on Swine make the following Report:

Your Swine Committee, painfully aware
How great the work entrusted to their care,
Feeling, alas! too well a mighty dread
Of what they know 's impending o'er their head—
Ruin, horror, and destruction, should they dare
Or chance to shrink from duty's line a hair,
Knowing they ne'er again in that dread case
Their fellow-man, or pig, could boldly face,
Trembling, at first, and, it must be confessed,
Growing more timid as the work progressed,
Until they fairly shook within their shoes,
Lest they might e'en their reputations lose,
Have labored, since the earliest dawn of light
Dispelled with deep'ning glow the shades of night,
Uncheered save by the casual grunt and squeal
Which on their ears at times did gently steal.
Duties like these ne'er fell to the lot of man,
So all-important, since the world began;
Responsibilities so vast indeed
Were ne'er before to mortal man decreed;
Not great Napoleon on that awful day
Which saw at Waterloo, in proud array,
That mighty force—but still too weak to save
Him from his destined fate—an exile's grave;
Not Russia, when the Allied Powers declared
What either one alone had never dared—
"You shan't have Turkey to yourself, 'taint fair;
If she must be cut up we want our share."
Not mighty Walker, when on hapless Lawrence
Fell his great rage in overwhelming torrents,
Because they'd dared, defiantly, to take
Charge of their own affairs, and to make
A city government, and choose a mayor—
Tremendous crime! Pray God it may be rare.
Not one of these was half so much perplexed—
Not one knew less what would or might come next—
Not one of them e'er saw before his eyes
Labor in such tremendous mountains rise.

To thee, oh, pinguid monster, whom to-day
We've dared to make the burden of our lay,
What shall we say? how can we justice render
To all the savory tit bits, rich and tender,
So widely known, so justly world-renowned,
That in thy hide from tail to snout are found?
With nose so short, and tail curled up so tight
That both seem almost drawn in out of sight;
With form compact and bristles clean and shining,
With grunts, short, quick and sharp, no plantive whining,
Legs short, back square, sides hard, and round, and big—
We humbly bow before thy shrine—oh, Pig!
Never was poet blessed with nobler theme,
No worthier subject e'er inspired thy dream,
No more soul-stirring task can ere be mine,
Than to recount thy virtues o'er, oh, Swine!
From squealing three-pound pighood, full of glee,
As full of happiness as pig can be,
Up through the graver cares of middle life,
To eat, and sleep, and fit thee for the knife—
To grunting lordly hogdom, when we see
Hogs, sage, philosopher, combined in thee—
Through all these phases, still thy bright example,
As thy dimensions daily grow more ample,
Grows brighter, and thy many virtues call
On man to try and emulate them all.
Who ever saw a pig in all creation
Act without thought and due deliberation?
Who ever saw one in the least bit hurried,
Confused, excited, agitated, flurried?
Deliberate forethought marks each step instead—
He's sure he's right, and then he goes ahead;
This, linked with firmness, is his strongest trait,
And hence, some call him, wrongly—obstinate.
He simply has his honest predelictions,
And will not act against his best convictions;
Place him between two roads—at once he knows
Which way he wants to go—and so he goes.
He calculates his chances, looks around,
This way—and that—and ascertains his ground;
And once his mind thus formed, with cautious care,
All christendom can't turn him half a hair.
For man he entertains a feeling strong

Of pure contempt; he thinks he's always wrong;
Just tie a cord around his leg, and try
To drive or coax him to or from his sty;
You pull the cord one way with all your might,
That proves to him the other way is right.

But that which most delights our heart to see
Nobly and well developed, Pig, in thee,
Is that great principle, abhorred of kings,
But prized by men above all other things,—
Democracy!—in all its grandeur, finds
A fitting home within thy breast, and shines,
Or seems to shine, more brightly as we see
Its noblest representative in thee.
Not that fanatic species here is meant
Which gave to us Old Buck for President,—
But noble, genuine, pure democracy—
The absence of all aristocracy—
Which prompts to generous actions, fellow feelings,
To cordial interchange of grunts and squealings—
Which lets you, when you're eating, put your feet
Within your trough—and teaches you to meet
Your fellow pig with kindness, and to love him,
And not turn up your nose and feel above him;
To welcome him with kindness at the trough,
And not because you're stronger, drive him off—
To feel, in short, beyond a doubt or cavil,
That all well-mannered pigs are on a level.
Thy wisdom is by far too widely known
To need from us here, kneeling at thy throne,
More than the briefest passing recognition—
A simple tribute to thy erudition.
Even in earliest pigdom, blithe and gay,
When running round and getting in the way
Of coach and carriage wheels and horses' feet,
Is the idea of happiness complete.
'Neath all this seeming carelessness we find
Sagacity and prudence so combined,
That even at this early, tender age
We have rich promise of the future sage;
But when at length these follies all abjured,
We see thy mind and body both matured,
Each stuffed and crammed e'en to their utmost fill,

The first with learning and the last with swill,
Weighing at least a quarter of a ton—
Too fat to see, or walk—much less to run—
'Tis then, oh, Pig, thy wisdom brightest shines,
And man admiring listens, longs and pines
To catch some words of wisdom from thy store
Of knowledge, learning, wit and piggish lore.
But all in vain! if Pig can speak he won't—
He vouchsafes nothing but a solemn grunt—
His wisdom is profound, beyond a doubt,
But he's not going to tell it all right out.
His friends make this explanatory boast—
"They always talk the least who know the most."

The canvas shifts. The moral pig no more
We contemplate, but dropping one step lower,
We have another widely different view,
Not quite, we trust, unknown to most of you—
The view that epicureans always take—
That pleases best the hearts of those who make
Gods of their bellies, and who tribute pay
To their divinities three times a day.
We speak of dropping one step lower; 'tis true
The stand-point 's lower down, but then the view
Of pig as pork 's as interesting, quite,
As when we see him in a moral light:
For while most solemnly his friends discourse
Upon his virtues, and most plainly show us
That he is loyal, noble, true and wise,
Growing in goodness as he grows in size,—
Right in the midst of all this fullsome talk
Just pass a napkin, plate, and knife and fork,
And place a well browned sparerib where the nose
Will catch the savory steam as up it goes;—
At once discussion stops. We hear no more
Of pig's great goodness, or his wisdom's store,
But in its place the ever pleasant clatter
Of knives and forks, and steel against the platter.
The Jews call him unclean; perhaps 'tis so—
Externally, we grant it, for we know
He never is so happy as when putting
His nose inside a pile of dirt and "rooting;"
But e'en though outwardly this may be so,

No animal in christendom can show
Within his hide so good a bill of fare
As pig has got, all snugly rolled up there;
But here I pause. My pen, till now inspired
And with enthusiastic ardor fired
Which faithfully has served me many a year,
And ne'er before showed any sign of fear,
Which when we endeavored in our humble way
His many well known virtues to portray,
Showed both the "will to do, the soul to dare,"
And never dodged a line nor flinched a hair—
Now when though somewhat in the same connection,
The subject takes a sudden new direction,
And we would fain again invoke the muse
To sing of sauce-pans, roasts and savory stews,—
Shrinks back and seems its power to distrust,
To be to itself and to the subject just;
And long deliberates in seeming doubt,
And thinks the subject o'er from tail to snout—
And vacillating long, perplexed indeed,
Flatly at length refuses to proceed.
This settles it; the race is run—we're beat;
Nor is it wise to mourn o'er our defeat;
At least for you whom cruel fate and hard,
Has doomed to listen to the prosy bard—
Although it may be proper for the poet
Regret to feel not only but to show it.
To see his brightest, best creations shattered,
His noblest, loftiest flights of fancy scattered,
But you—just learn what you've escaped, and then
Blame, if you think you ought, the faithful pen.
For were it not for this unhappy plight,
I doubt if I'd be through to-morrow night;
So broad the field, so much there is to say,
The narrow limits of a single day
Would hardly half suffice to justice render
To all the delicacies, sweet and tender,
Which Pig, wise, generous, and withal good looking,
Carries at all times ready for the cooking,
Take him right through and through by any route,—
From side to side, from curly tail to snout—
From back to shaking Santa Clausian belly—
Quivering with every grunt like soap or jelly—

In every nook beneath his bristly skin,
You'll find some tender tit-bit snug packed in;
A victualling Cyclopedia, all complete;
A restorator, walking on four feet;
Be it, in short, to boil, broil, fry or roast,
As we've once said, no animal can boast
So many good things packed away inside,
As Pig has got rolled up within his hide.
The roasted tail, so juicy, rich and sweet,
There's nothing better—save perhaps the feet;
Souse, fried in meal, or broiled, or cold and pickled;
Has not the very thought your palates tickled?
Fried ham and eggs—who has not felt a thrill
Of pure delight his very being fill,
To find his loving wife has undertaken
To furnish for his breakfast eggs and bacon?
To find his nostrils with rich fragrance filled,
From mingled ham and eggs and toast distilled,
While clouds of incense from the coffee-pot,
Shining like silver, free from stain or spot,
Pervades all with the aromatic flavor
Of unadulterated best Old Java!
Spare-ribs, with fat, in little channels streaming
Down their browned sides, with savory fragrance steaming,
At once so tempting and exhilarating
To all who sit around the table, waiting
For him who 's saying with a solemn face,
A seemingly interminable grace—
That each one finds it in his heart to say,
"Please stop and say the rest another day"—
The tender roaster, seized in earliest youth,
In days of innocence and joy and truth,
When life's enjoyment is perhaps completest—
And too, alas for him, his flesh is sweetest;—
But most to thee, oh, Sausage! would we pay
The choicest, highest honors of to-day;
Although we're well aware some light suspicion,
(Vile, slanderous rumors, not worth repetition,)
Has somewhat dimmed the brightness of thy fame,
By being coupled with thy honored name.
No doubt that sausages are sometimes made
Without, oh, Pig, from thee the slightest aid;
No doubt, in cities, sausages are filled

(Where hosts of dogs and cats are daily killed,)
—But stop! I'm saying more than I intended;
I think the less there's said, the sooner mended;
But still, I'll say—it can't be thought unfair—
We've still got dogs enough, and some to spare;
And if the surplus can be thus used up,
Spare not, brave butcher! e'en the smallest pup!
Nay, more; I'll now agree, if any one
Will bring to me of sausages a ton,
And prove them made of dogs in Fitchburg found,
I'll buy the lot at twenty cents a pound.
But take the genuine sausage, really filled
With genuine pork, by finger neat and skilled,
The meat chopped fine, alternate fat and lean,
Seasoned, and placed in skins you know are clean,
Or take a strip of cloth twelve inches wide,
Fold it and sew it up one end and side—
It makes a bag—shaped like (but don't, I beg,
At my suggestion use) a stocking leg;
This fill up with the richly seasoned meat,
And cut off slices as you wish to eat.
There's nothing like it! search the whole domain
Of earth, air, water, and you search in vain—
At least I think so; still I am well aware
There's variance of opinion everywhere.
John Bull likes beef rare done; the French eat frogs;
The Dutch saur kraut; the Chinese cats and dogs;
The latter openly, and make their boast
There's nothing half so sweet for stew or roast;
And if they must be eaten, 'tis, methinks,
Better to eat them so than chopped—in links!
While some irreverent rascals, we're told,
Kill and eat up their parents when they're old—
This last we don't believe; it's nonsense, stuff—
It is (we mean the story) quite too tough;
Well, let them eat; let each in peace and quiet
Enjoy as best he may his chosen diet;—
If you like frogs, why eat 'em, and let me
Enjoy my sausage—we won't disagree.
Yes, sausage! thou the palm shalt bear away,
For thee I tune my lyre and sing my lay,—
But here I pause, in pity to the pen,
Never rebellious till the moment when

We intimated to you our intention
To summon in a sort of mass convention,
The elements which go to form that mine
Of sweet and tender tit-bits, called the Swine.
I could for hours and days the strain prolong—
'Tis hard, in fact, t' abbreviate my song;
But fate decrees it, and I must obey,—
I only hope that on another day,
All things propitious, you'll not be debarred
From listening longer to a worthier bard.
One single word at parting, would we say,
To thee, oh, Pig—thou hero of our lay!
My choicest blessings on thy life attend,
And gentle butchers serve thee at the end—
May happiness for thee ever be found
In one continuous never-ending round
Of eating, sleeping, waxing fat, until
Thy monstrous size proclaims thee fit to kill;
And may thy bright example, now as ever,
Till death doth thy connection with us sever,
Afford, as heretofore, a beacon light,
Guiding unerringly to truth and right;
And may thy masters, here on this occasion,
Show of thy virtues full appreciation,
By copying them, and carefully refraining
From scolding the Committee, and complaining
That our awards of partiality savor—
That premiums, like kissing, go by favor!
May they be fully satisfied, and see
That only justice has been done, and be
Resolved in no event to show affront,
But take whate'er is given, without a grunt.

The Committee award the following premiums:

To Jabez Fisher, of Fitchburg, for the best Boar, more than one year old, $4,00

" J. P. Sabin, of Fitchburg, for the second best Boar, more than one year old, 3,00

" J. T. Dinsmore, of Lunenburg, for the best Boar, less than one year old, 2,00

To Walter Whitney, of Fitchburg, for the best fat Hog, more than eight months old, $4,00

" A. F. Adams, of Fitchburg, for the second best fat Hog, more than eight months old, 3,00

" A. F. Adams, of Fitchburg, for the third best fat Hog, more than eight months old, 2,00

" Benj. Safford, of Fitchburg, for the best fat Pig, less than eight months old, 3,00

" Levi Kendall, of Fitchburg, for the second best fat Pig, less than eight months old, 2,00

" Enoch Caldwell, of Fitchburg, for the third best fat Pig, less than eight months old, 1,00

" Natt Cowdin, of Fitchburg, for the best breeding Sow, 3,00

" Levi Kendall, of Fitchburg, for the second best breeding Sow, 2,00

" W. A. Crehore, of Fitchburg, for the third best breeding Sow, 1,00

" Nathan Caswell, of Fitchburg, for the best weaned Pigs, not less than four, 2,00

" James Pierce, of Westminster, for the second best weaned Pigs, not less than four, 1,50

Mr. W. A. Crehore presented for exhibition a very fine Boar, which he had not however owned a sufficient length of time to entitle him to draw a premium, which in the unanimous opinion of the Committee he richly deserved. It was one of the finest animals for his age the Committee have ever seen.

GEO. E. TOWNE, *Chairman.*

SHEEP.

Your Committee had hoped that the pens allotted to their department would be well filled, and that there would be some difficulty at least, in deciding who were the most entitled to the premiums. In this we have not been disap-

pointed. Never since the formation of the Society has there been so fine a display of Sheep as has been seen here to-day.

There were nine entries; three flocks; six bucks—in all 44. We are aware that most farmers think more of a fast horse, or a work horse, an ox or a steer, a cow, or a fat swine than they do of a sheep, or a flock of sheep. Among most farmers this kind of stock has gone out of date; it has become obsolete.

But your Committee have no doubt that sheep husbandry can be made a profitable business in this part of Worcester County. In England, farmers engage in this business for the sake of enriching the soil. This is done by fencing off a lot of an acre, and sometimes less, and there keeping from 100 to 300 sheep, feeding them with hay, grass or roots, until the soil is well prepared for cultivation; then they are removed to another lot; and this process is carried on until a large tract is prepared for the plow. Without sheep, many farmers say, they could do nothing with their land. We believe also it is one of the best ways of reclaiming rough pasture lands. Sheep will not only enrich the soil, but they will destroy bushes, briers and thorns.

To show that sheep-husbandry can be made a profitable business in this State, we would refer to the statements of a few farmers in Hampden County. One says that he had last year nine ewes and one buck, a mixture of the South Down and native. About the first of January seven of the ewes dropped one lamb each. In April the remaining two dropped each a pair of twins, and about the first of July the seven first named dropped one lamb each, making in all eighteen lambs from nine ewes within seven months. In June eight of these lambs were sold for $32,00, or $4,00 per head. Another says that his income from ten sheep last year was $69,00. And another, that the net profit of ten sheep was $41,00, or $4,10 per head.

The successful wool-grower will always endeavor to raise sheep, as well as wool for the market, consequently he will have regard to the size as well as the form of the animal.

If any one wishes to raise them for the wool, we recommend the Merino mixed with the native; but if for the shambles, then the Leicester mixed with the native.

There are two objections to sheep-husbandry. The first is the difficulty of fencing against them; and the other is the danger to which they are exposed from the canine race.

But there is no more difficulty in fencing against the sheep than there is against the horse, the ox, or the cow. It is true they may require a different fence from most other animals. But one made from rails, boards, or even brush, is all that is necessary to stop any sheep that are worth keeping. With regard to dogs, we believe that every town should pass a vote, not only to restrain neat cattle, horses and swine, but also dogs.

After a careful examination of the animals at the pens, and after attending to the statements of the owners, we award the following premiums:

To Reed Merriam, of Westminster, for the best flock of sheep, native breed, . . $3,00

To Peter Richardson, of Hubbardston, for his cosset buck, 6 months old, weighing 110 lbs., Leicester mixed with native breed, the first premium of 2,00

To Joel Hayward, of Ashby, for his cosset buck, 16 months old, weighing 158 lbs, Leicester breed, the second premium of 1,00

To George Kendall, of Ashby, the third premium of ,50

We regret that there had not been more premiums at our command, and recommend to the Society that they increase the amount for another year; and we also recommend that the Society request that every one who offers a flock, or a single sheep for a premium, shall make a written statement of the weight of each fleece, of the kind and value of each, the number and value of the lambs if any; also the expense and the net profit of each.

All of which is respectfully submitted.

JOHN M. HARRIS, *Chairman.*

POULTRY.

The exhibition in this department was unusually good, a larger variety of fine Fowls has seldom, if ever, been shown in this place; they were mostly of superior breeds. Your Committee consider the absence of monster birds with on other recommendation than their ungainly size and bad looks, a matter of congratulation to all good housewives, and the lovers of eggs and table poultry generally.

Your Committee award the following premiums:

To J. T. Everett, of Princeton, for the best dung-hill fowls, not less than six, $2,00
To Jabez Fisher, of Fitchburg, for the second best dung-hill fowls, not less than six, 1,00
To Albert B. Haskell, for the third best dung-hill fowls, not less than six, 1,50
To Myron L. Billings, of Fitchburg, for the best turkeys, not less than six, 2,00
To D. S. Eaton, of Fitchburg, for the second best Turkeys, not less than six, 1,00
To Alvin M. Sawyer, of Fitchburg, for the third best turkeys, not less than six, 1,50
To R. G. Chessmore, of Westminster, for the best geese, 1,00
To Samuel Farwell, 2nd, of Fitchburg, for the best ducks, 1,00

Warren Upton exhibited a pullet six months and four days old, with a brood of 12 chickens eight days old. The pullet has laid 23 eggs, and was set on thirteen. The breed is a mixture of the bolton gray and seabright bantam.

JOHN J. PIPER, *Chairman.*

Alvin M. Sawyer's Statement.

This hen turkey laid sixteen eggs. She was then put setting, but laid two more eggs while setting. She hatched out eighteen young turkeys, all of which are here exhibited

except one, which one suddenly died when about half grown; upon examination, a black spider was found in its crop, which was supposed to have caused its death.

The experiment which I have tried in raising this brood is this. I took equal parts of oat and corn and cob meal, (if another equal part of barley meal had been added it would have been better) and mixed them together. With this they were fed until about three weeks ago, when I boiled potatoes and mixed with the meal. We think Indian meal alone very injurious, especially to *young* turkeys; we also gave them as much curdled milk as they would eat. Since the young turkeys were hatched, the old one has laid over three dozen eggs.

FRUITS AND FLOWERS.

The display of Fruit this year furnishes many evidences of an increased attention to Horticulture. The show is better than last year, though in the amount presented, and in the plumpness and fairness of specimens, it falls short of some former years. Fruit growers however, cannot control the seasons. The unfriendly weather in the early months of the year seriously impaired the quality and quantity of most kinds of fruit.

Your Committee however find much encouragement, and congratulate the Society in the hopeful increase of *superior varieties.* In that, they see decided indications of effort in the right direction. Quite as much care, culture, time and land is requisite to bring an indifferent Pear to a bearing condition as will suffice for the Flemish Beauty, Bartlett or Seckel. The Blue Pearmain and Scraper Apples, in their highest state of perfection, cannot equal the Gravenstein, Hubbardston, Nonsuch and Baldwin, and yet one is quite as expensive to raise as the other.

The Committee regret that they can do nothing more than express their unqualified praise of the splendid collection of Fruit presented by Benjamin Snow, Jr., as it was not offered for premium. It embraced the finest and farest specimens of the highest order of varieties known in our climate, and each variety panologically true to its mark.

The Committee also noticed with pleasure a fine collection on exhibition from the orchard of Gen. Moses Wood. This was not offered for premium.

Two plates of beautiful Crawford Peaches, presented by Jerome Gardner, Esq., of Shirley, would have received a premium had they been offered in season.

Considering the season and the comparatively slight interest which Grape culture has awakened in this community, the display of that Fruit was not perhaps discreditable. The Grape is deservedly attracting more attention to its culture each year, and opens a wide field for improvement and enjoyment. Many of the specimens presented, although good of the kind, were of a decidedly inferior order. Cultivators should bear in mind that the vine of a poor variety may by judicious grafting, at the proper season, be made in three years to produce fruit sufficiently early to ripen in any season, tender, wholesome and of the most delicate flavor.

We regret that they were prevented in several instances from considering the claims of fine specimens, by the names of the contributors being attached to the fruit, in violation of the rule.

The Committee make the following awards:

ON APPLES.

For best twelve varieties of five specimens each, first premium to Leonard Burrage, of Leominster, $4,00

For second best twelve varieties of five specimens each, second premium to Moses M. Gage, of Fitchburg, 2,00

For best six varieties, five each, first premium to Ezra Kendall, of Sterling, of 3,00

For best six varieties, five each, second premium to Asa Sawyer, of Fitchburg, of $1,50
For best dish of any variety, to S. Farwell, of Fitchburg 2,00

GRATUITIES.

To Amos Whitney, of Ashburnham, 1,00
To Charles Flagg, of Sterling, ,75
To Dr. C. C. Field, of Leominster, ,75
To Samuel Osgood, of Sterling, ,50
To A. B. Damon, of Fitchburg, ,50
To George G. Sampson, of Ashburnham, ,50
To Dr. T. R. Boutelle, of Fitchburg, ,50
To John Lowe, of Fitchburg, ,25

ON PEARS.

For best twelve varieties of five specimens each, first premium, no one entitled to it.
For best twelve varieties, of five specimens each, second premium, Wm. G. Wyman, of Fitchburg, $2,00
For best six varieties, of five each, first premium, no one entitled to it.
For best six varieties, of five each, second premium to Leonard Burrage, of Leominster, 1,50
Best dish to Dr. Sewall Richardson, of Leominster, 2,00

GRATUITIES.

Jabez Fisher, of Fitchburg, $1,75
Dr. T. R. Boutelle, of Fitchburg, 1,00
Walter Heywood, of Fitchburg, 1,00
Cyrus Thurston, of Fitchburg, ,75
Dr. C. C. Field, of Leominster, ,75
Elliott Wood, of Fitchburg, ,25
Jacob Haskell, of Fitchburg, ,25
Hale W. Page, of Fitchburg, ,50
Addison Hubbard, of Fitchburg, ,50
Daniel S. Eaton, of Fitchburg, ,25
Herbert McIntire, of Fitchburg, plate of Pears, ,75

ON PEACHES.

For best plate to Addison Hubbard, of Fitchburg, $2,00
For second best plate to Dr. C. C. Field, of Leominster, 1,00
For thrid best plate to Ezra Kendall, of Sterling, ,50

ON QUINCES.

For best dish to Dr. J. A. Marshall, of Fitchburg, $1,00
For second dish to E. Sprague, of Fitchburg, ,50
For third dish to Ezra Kendall, of Sterling, ,50
For fourth dish to Thomas Upton, of Fitchburg, ,50

ON PLUMS.

For best plate to Orin Partridge, of Fitchburg, $1,00
For second best plate to Dr. J. A. Marshall, of Fitch'g, ,50
Best jar of preserved Plums, gratuity to Moses M. Gage, of Fitchburg, ,50

ON GRAPES.

Specimen of Black Hamburg, to Walter Haywood, of Fitchburg, $2,00
Specimen of White Frontignan, to Walter Heywood, of Fitchburg, 1,00
Best specimen of Native Grapes, to Jabez Fisher, of Fitchburg, ,50

ON CRANBERRIES.

Gratuity to Charles Flagg, of Sterling, $0,75
Gratuity to John Hollis, of Fitchburg, ,50

ON FLOWERS.

Your Committee in closing their report cannot but express their sorrow that so few Flowers were presented either for exhibition or premium. We will not say that he is a bad man who does not love flowers, but we are quite certain that good men are made much better by loving and appreciating the rare beauties of this department of nature.

For best boquet to Mrs. Levi Benjamin, of Fitchburg, $1,00
For second best boquet to Miss Mary Green, of Fitchburg, ,50

Two bouquets offered by Mr. J. M. Sawtelle, would have received a premium had they been entered in season.

All of which is respectfully submitted.

G. F. BAILEY, *Chairman.*

VEGETABLES.

The department which has been assigned to your Committee is one of great importance, growing out of its relations to the human family in supplying their daily wants, and in adding to many of their frugal meals, a share at least of what are regarded as the dainties and luxuries of life.

This department of agriculture is pursued by many in all classes and professions of our fellow-citizens, and hence whatever influence contributes either to its wider development, or permanent improvement, is not only an advance in practical science, but eminently a blow struck in behalf of the public good, and the material welfare of a vast population. The demand for good vegetables is rapidly increasing in our community, and should stimulate our farmers to devote a larger share of attention to their cultivation. At present most of our early vegetables are procured at Boston market, and are readily sold to our citizens at highly remunerative prices. Doubtless no branch of agriculture successfully prosecuted, pays so large a profit as the cultivation of vegetables; we propose therefore in this report to offer a few thoughts and suggestions connected with their cultivation, and first:

Plowing.—The object of plowing is not alone to kill the weeds and grass, nor even to furnish a seed bed of fresh

turned soil for planting or sowing, nor anything that looks merely to the inversion of the sod, but the chief value of plowing is, the preparation it gives the soil for producing vegetation, for giving to the various plants the elements of growth and fruitfulness. Hence the object of the plow is to thoroughly pulverize and loosen the soil, and thus admit a free circulation of air and moisture, which by chemical action, breaks down the strong or mineral portions of the soil, so that they may be the more readily disolved, and taken up by the roots. In a soil thus plowed and prepared for yielding its support to vegetable life, plants can appropriate both far and near the nutriment needed for their growth. It is in this way dissolved and ready for their use; not hidden in unbroken clods, or slumbering in an undisturbed sub-soil, but awaiting the action of the roots in a friable and penetrable state, when every hungry rootlet sent out to gather nourishment for its parent plant, may find food to satisfy its own hunger, and a ready surplus to gratify its worthy sire. Fineness and depth of soil are requisite also in order to receive the full benefit of the manures applied. It is not fertilizing food in its crude state which assists vegetation, but it must become intimately mixed with, or more properly become a part of the soil in order to produce the best results.

Barnyard manure especially, seems of little worth, while forming visible layers between the clods of a half plowed field. It being often dry and coarse it will rather be *shunned* than *sought* by the roots and fibers sent out in search of suitable food. If a well prepared soil has any strength or virtue, it will yield readily, and poor land even when properly prepared is often more productive than richer soil less perfectly prepared; by such a preparation the influences of moisture and air have freedom to work, and they are no sluggards in supplying the wants of vegetation.

A deep sandy loam is undoubtedly the most favorable soil for most kinds of vegetables, and yet by proper culture, a liberal crop may be obtained upon those less congenial. The adaptation of the different kinds of manures to the dif-

ferent varieties of vegetables, is a matter worthy of careful investigation and experiment. Liquids however, for top dressing, are far preferable to all others.

Selection of Seeds.—In the cultivation of vegetables, great care should be taken in the selection of seed, not merely in obtaining the best varieties, but so far as possible that which had a healthy growth and came to an early maturity the previous year. Those who rely wholly upon our seed growers for their supply will not always get the quality or variety sought for; but if proper care be taken, each man may raise mostly his own, and thereby not only save an item of expense, but determine the age and quality of his seed for himself.

Potatoes.—Doubtless it will be conceded by all that no vegetable has so large a claim upon our attention as the Potato, inasmuch as none occupy so common a place upon our tables, or is so well adapted to meet the wants of those in poverty and distress. Hence whatever knowledge human science or practical experience can furnish, either to improve their culture or preserve them from disease, should be cheerfully presented and widely diffused. So general was the disease the past year, coupled with the severity of the winter, that the price of good Potatoes reached a point in our market before unknown. Although the disease, has made fearful ravages in many sections the present year, yet the indications are that the crop will be much larger and of better quality than that of the previous year. Had our farmers the certainty of a large and healthy yield, no crop would be so profitable at anything like present prices. But as no infalable remedy has yet been discovered to protect this valuable vegetable from the fatal disease to which it is now subject, we have only to go forward in the use of such means as science and practical experience may suggest, until the turning of a new leaf in the great book of Providence shall reveal to us either the cause of the disease, or suggest a permanent and effectual remedy.

Squashes.—Few articles raised in the garden exceed in value and importance the Squash. It makes the very best of pies, and its place among other vegetables in an old fashioned boiled dish cannot well be spared. The best varieties are the Crookneck, Marrow and Hubbard; the latter is said to be far superior to either of the others in every respect, for pie or table use. With ordinary success the Squash is a profitable crop to raise for market, as the demand is uniformly beyond the supply.

Cabbage.—There is no vegetable in general use so nearly allied to meat as the Cabbage. Oxygen, hydrogen and carbon are the constituent elements of most vegetables, but the Cabbage adds to them nitrogen, which makes it similar in its composition to flesh; this renders it a more hearty food than other vegetables. That it is a healthy and highly nutritious article of food is indicated by the hardy constitutions of the Dutch and Irish races, who make it a leading article of daily consumption. This vegetable is used in some sections extensively for feeding stock, and is found to be highly valuable. A crop for fodder may be sown broadcast, with no culture except an occasional sprinkling of ashes. It may be secured by mowing, and feeding green.

Cauliflower.—This is regarded by many as the most delicious vegetable of the cabbage kind known. It has a large white head, composed of flower stalks and unexpanded flowers, surrounded with long pale green leaves; the white head only being eaten. The plants should be raised like early cabbage plants, and transplanted in a similar manner; they require a rich soil, and where grown in small quantities in a vegetable garden, the benefit of soap suds on washing days is very apparent; there are several varieties, the best of which is the Early Paris.

Carrots.—Carrots are said to be less used here than in any other country in the world. In France they are considered one of the necessaries of the table, and are particularly prized as an article for soap making. It is a very wholesome vege-

table and undoubtedly deserves more notice than it receives, for table use. For stock feeding it is more extensively used, and is considered invaluable. The early short horn is the earliest and best variety for the table; next to this, and best for winter use is the Altringham. A deep, rich, sandy soil is best adapted to the Beet and Carrot.

Few vegetables are more palatable than good Beets, and they deserve a more frequent visit at our tables than we are accustomed now to give them. The best variety for all seasons of the year is the early Turnip.

Pumpkins.—While we would not discourage the raising of the ordinary field Pumpkin for feeding stock, we would earnestly recommend the small sweet variety for pies and table use. Who does not wait with anxious longing for the season of pumpkin pies to return, and with what a keen and hearty relish are they welcomed and devoured; now if you would have your palates tickled with a new and more agreeable sensation, procure the sweet pumpkin, and let the good lady of the house display her skill upon that which nature evidently designed for pumpkin pies.

We should be glad to follow out the list of vegetables on exhibition to-day and speak of each in detail, but the growing length of our report forbids such a reference. In conclusion, we may add, that the present variety and excellence of our vegetables has only been obtained by careful research and persevering effort. Let then the spirit that has animated the past, in this department of Agriculture, be applied to the future also; then we may hope that the time will come, when the vegetable gardens that refresh and adorn the rural homes of our land will bear some humble resemblance to that which was planted more than three thousand years ago, amid the bowers and fruits of Paradise.

The show of vegetables to-day exceeds in quality and variety any previous exhibition of the Society. We would commend especially the fine *collections* of kitchen vegetables, which while they added much to the interest of the exhibition, were equally creditable to those who raised them.

The display of Potatoes was large and unusually good.

The number and variety of Squashes was very fine. On the whole the exhibition was fully worthy of the approbation of the Society.

COLLECTIONS OF KITCHEN VEGETABLES.

John M. Sawtelle, of Fitchburg, first premium,	$3,00
Levi Kendall, Fitchburg, second premium,	2,00
John Hollis, Fitchburg, third premium,	1,00

POTATOES.

W. W. Watson, Princeton, first premium,	$2,00
Marraton Upton, Fitchburg, second premium,	1,00
Samuel Osgood, Sterling, third premium,	,50

MARROW SQUASHES.

Lawrin Pratt, Fitchburg, first premium,	$1,00
Jabez Fisher, Fitchburg, second premium,	,50

CROOKNECK SQUASHES.

Walter Heywood, Fitchburg, first premium,	$1,00
T. R. Boutelle, Fitchburg, second premium,	,50

PUMPKINS.

Alfred Hitchcock, Fitchburg, first premium,	$0,75
Walter Heywood, Fitchburg, second premium,	,50

CABBAGES.

Jacob Haskell, Fitchburg, first premium,	$0,75
Jabez Fisher, Fitchburg, second premium,	,50

ONIONS.

Lawrin Pratt, Fitchburg, first premium,	$0,75
Jabez Fisher, Fitchburg, second premium,	,50

TURNIP BEETS.

Abel Thurston, Fitchburg, first premium,	$0,75
T. R. Boutelle, Fitchburg, second premium,	,50

ENGLISH TURNIPS.

Gardner Merriam, Leominster, first premium,	$0,50
Jabez Fisher, Fitchburg, second premium,	,25

TOMATOES.

Benj. Safford, Fitchburg, first premium,	$0,50
Isaac B. Woodward, Fitchburg, socond premium,	,25

WHITE BEANS.

Benj. Safford, Fitchburg, first premium,	$0,50
Cyrus Thurston, Fitchburg, second premium,	,25

SEED CORN.

James McIntire, Fitchburg, first premium,	$1,00
S. A. Childs, Fitchburg, second premium,	,75
Marraton Upton, Fitchburg, third premium,	,50

GRATUITIES ON VEGETABLES.

T. R. Boutelle, Fitchburg, Potatoes,	$0,25
Asa Sawyer, Fitchburg, Potatoes,	,25
J. W. White, Fitchburg, Sweet Potatoes,	,50
Jabez Fisher, Fitchburg, Seed Cucumbers,	,25
J. F. Simonds, Fitchburg, Lima Beans,	,25
Benj. Safford, Fitchburg, Garden Beans,	,50
E. Sprague, Fitchburg, Sweet and Pop Corn,	,25
E. A. Hubbard, Fitchburg, large Squash,	,25
Alvah Crocker, Fitchburg, Cabbage,	,25
Alvah Crocker, Fitchburg, Celery,	,25
J. M. Sawtelle, Fitchburg, Seed Corn,	,50
Benj. Safford, Fitchburg, Seed Corn,	,50
Asa Merriam, Westminster, Turnips,	,25
W. H. Jones, Lunenburg, large Squash,	,50
Waldo Wallace, Fitchburg, Sugar Cane Syrup,	,50
Jerome Gardner, Jr., Shirley, Sugar Cane Syrup,	,50

J. S. BROWN, *Chairman.*

BREAD, BUTTER, CHEESE, &c.

The Committee to whom was referred the examination and award of premiums upon Bread, Butter, Cheese, Pickles and Honey, have attended to that business and make the following report.

The staff of life and that which makes it go, and the sour and sweet, have all passed under the examination of your Committee, and from the display of said articles your Committee have come to the conclusion that whatever other quarrels and disagreements either of a political, religious, or of any other character exist among the citizens of this vicinity, they do not intend to quarrel with their bread and butter. Your Committee after tasting, smelling, seeing, hearing and feeling, and thus having exhausted all five of their senses and faculties, award the following premiums.

BREAD.

For the best loaf of wheat bread, they award to Miss Ellen Smith, of Fitchburg, the first premium of, $1,00

For the second best loaf of wheat bread, to Eliza Williams, of Fitchburg, the second premium of, ,50

For the best loaf of unbolted wheat bread, they award to Miss Aurelia Kendall, of Fitchburg, the premium of, 1,00

For the best loaf of bolted rye bread, the first premium is awarded to Mary L. Adams, of Fitchburg, 1,00

The second premium for bolted rye bread was not awarded, as there was none of sufficiently good quality to deserve it.

For the best loaf of rye and indian bread, they award the first premium to Miss Aurelia Kendall, of Fitchburg, 1,00

For the second best loaf of rye and indian bread, to Miss Marcia Stockwell, of Fitchburg, the sum of, ,50

And your Committee feeling at home on good old fashioned wheat bread, recommend a gratuity of 25 cents to Rufus L.

Wilder, of Leominster, a lad 12 years old, who on seeing some of our ladies aping men in wearing pantaloons, thought the kitchen might be short of hands and so took to making bread.

BUTTER.

There was a grand display of butter, and here your Committee felt the importance of a keen discrimination.

For the best specimen of butter, they award the first premium to Levi Kendall, of Fitchburg, $3,00

For the second best specimen of butter, to Henry Boyles, of Princeton, 2,00

For the third best specimen of butter, to W. W. Watson, of Princeton, 1,50

For the fourth best specimen of butter, to S. M. Caswell, of Fitchburg, 1,00

CHEESE.

For the specimen of cheese worthy the first premium, alas! there was none.

For the best, they award the second premium to Geo. Miles, of Westminster, $1,50

This was the only specimen offered. Where are our cheese makers?

PICKLES.

For the best jar of pickles, they award to Miss Maria A. Putnam, of Fitchburg, the first premium of, $0,75

For the second best jar of pickles to Mrs. Levi Kendall, of Fitchburg, ,50

For the third best jar of pickles, to Mrs. Samuel Hawes, of Fitchburg, ,25

HONEY.

Only two boxes of honey were presented, and to pay for what your Committee did not eat as they could not get at it, they award the first premium to Dr. T. Palmer, $1,00

CHARLES J. BILLINGS, For the Com.

Levi Kendall's Statement.

I offer for the Society's premium one box of September butter.

Process of Making.—The milk is strained into tin pans and placed in a room for the purpose, which is cool and well ventilated. After standing from thirty-six to forty-eight hours, the cream is taken off, put into tin pots, and stirred at least once a day.

I churn twice a week with a rotary churn. After the butter is well gathered, it is taken into a wooden tray and salted with one ounce to the pound; it is then allowed to stand two days, when it is thoroughly worked and lumped for market, or packing.

P. S.—At the last working I add 2 oz. of sugar to 10 lbs. of butter.

Henry Boyles' Statement.

The butter which I offer for premium, was made in the following manner. The milk is strained into pans and set in running spring water thirty six hours, then skimmed, and the cream set in a cold spring till the time of churning. When churned, the butter is rinsed in cold water and worked thoroughly, and then salted to taste; after standing sufficient time to thoroughly cool, and dissolve the salt, it is worked the second time, weighed and lumped.

Wm. W. Watson's Statement.

My way to make butter is to set the milk in tin pans in a room on the north side of the house, which is kept well washed out. We keep the milk from twenty-four to forty-eight hours, and when the cream is taken off we put it in a stone pot and place it where there is ice, stirring it every day. It is churned twice a week and salted to suit the taste.

George Miles' Statement.

The subscriber offers two lots of cheese; one common, the other sage. We make but one cheese per day. The night's milk is strained into pans and the cream taken off in the morning. The milk is then warmed to blood heat, and added to the moning's milk with the cream returned; then add rennet enough to form the curd in thirty or forty minutes. When the whey is sufficiently drained from the curd by a gentle pressure, it is cut with knives to the size of dice and salted with about one pound of salt to twenty five of curd. It is then submitted to the press for two days with several turnings, then covered, dressed and turned daily until cured.

For sage cheese, the juice of green sage, with some of that expressed from pounded corn blades and is added to one half of the milk when set for cheese.

MECHANICS AND MANUFACTURES.

The Committee experienced the usual difficulty this year as formerly in examining the articles entered in their department, many of them not being presented till the morning of the exhibition, and those the Committee consequently could not give that careful examination which they justly merited; and the Committee are aware that in the crowded hall of the morning of the exhibition, with the large number of articles presented to pass upon, that some may have been omitted, but if so, unintentionally. Therefore the Committee feel excused upon that point; they feel an incompetency of doing justice to all the different articles presented, and inventions offered for their consideration. The Committee being but a bare majority of those who were assigned to perform this work, they entered upon it very reluctantly, disposed to do the best when the line between manufactured and fancy articles

when the line was drawn, so that the two Committees knew which belonged to them to pass upon. The settling of the question upon some of these articles caused too much delay in Committee, and should be obviated.

The variety of articles in our department entered for exhibition compares well with former years, but with the extensive manufacturing industry of Fitchburg and its neighboring towns, comprising the Worcester North Agricultural Society, the amount is altogether too small.

The first article viewed after organizing the Committee was a wagon, manufactured by Charles Fessenden, of Fitchburg; and also a miniature wagon upon the same principle, very nice specimens, and the only ones offered. We award, $2,00

The Committee were shown an invention attached to a furnace in one of the churches in Fitchburg, by Charles B. Sawyer, of Fitchburg, which attracted their attention and curiosity very much indeed, and of the usefulness and value of which they will attempt but a brief description. In the few moments that they had to examine it, it appeared from the experiment and the description of Mr. Sawyer as given to the Committee, to be an invaluable invention, he having the power of holding and controlling the temperature in any room, large or small to any degree, after once getting the required point by the thermometer. This was done by throwing off or retaining the heat at pleasure by the turning of a knob. We award, $3,00

To Abel Simonds & Son, of Fitchburg, for cam fastening attachment, and scythe and snath, fine specimen of mechanical skill, ,25

To A. Kimball & Sons, of Fitchburg, for scythe and snath, and with a screw fastening, thought to be a good arrangement, ,37

To A. Barnes, of Westminster, for a pumpkin cutter or slicing machine, ,25

To Thomas Sheldon, for one ox yoke, ,50

To Waldo Wallace, of Fitchburg, for the specimen of plows exhibited by him; the Committee think well of the cast iron beam, $0,50

To Simonds & Follett, of Templeton, for specimen of belt leather, ,50

To Simonds & Follett, of Templeton, for specimens of calf skins, one tanned with the hair on, very nice, 1,00

To S. G. Frost, of Fitchburg, for two harnesses, fine specimens, 1,00

To H. A. Goodrich, of Fitchburg, for a very fine specimens of hats, caps, gloves and mittens, ,50

To Palmer & Brown, of Fitchburg, for a collection of dentistry, a part of which was new and beautiful, 1,00

To Mrs. Joseph Parker, of Fitchburg, aged 84 years, for bed quilt, ,25

To Master John Walker, of Fitchburg, a boy six years old, for a bed quilt containing 2228 pieces, commendable for the industry and taste displayed, ,37

To Mrs. Thomas Sheldon, of Fitchburg, for wrought bed spread, ,50

To Mrs. Thomas R. Boutelle, of Fitchburg, for white knit bed spread, ,50

To Julia Boutelle, of Fitchburg, for a rug, ,25

To Mrs. Charlotte Bowker, of Fitchburg, a lady 85 years 6 months old, for two rugs, well made, ,25

To Mrs. M. M. Gage, of Fitchburg, for drawn rug, very handsomely done, ,50

To Mrs. Benson Bigelow, of Westminster, for rug, very good work, ,50

To Mrs. Charles Barker, of Fitchburg, for rug, ,25

To Frances Kemp, of Fitchburg, for rug, ,37

To Mrs. Betsey Merriam, of Fitchburg, for four braided mats, ,50

To J. C. Moulton, of Fitchburg, for his specimens of daguerreotypes and ambrotypes. 1,00

To Emily Boutelle, of Fitchburg, for bed spread, ,25

To Mrs. Harriette Burnap, of Fitchburg, for bed spread, ,37

To Mrs. Henry Boyles, of Princeton, for bed spread, $0,25
To Cynthia A. Jewett, of Fitchburg, for a very nicely quilted bed spread, beautifully designed, requiring a great amount of labor, 1,50
To Mrs. Benjamin Brown, of Fitchburg, for a beautiful patch work bed spread, ,50
To William G. Tolman, of Fitchburg, for stand of umbrellas and canes, ,37
To Wm. Woodbury, of Fitchburg, for his specimens of seives, steamers, egg beaters, sad iron holders, &c., ,50
To Elliot Wood, of Fitchburg, for some fine specimens of horse shoes, ,50
To Frederick Wabberson, of Fitchburg, one secretary, ,25
To Thomas Tolman, of Fitchburg, for self ventilating bellows bed, worthy of particular attention, and thought to be a very nice thing, ,50
Presented for exhibition by Chas. E. Dadmun, of Fitchburg, 2 bbls. and 2 half bbls. flour, very nice article indeed; not entered for premium.
To Thomas Sheldon, of Fitchburg, for press or saw goomer, a nice article, ,25
To Jacob Tolman, of Fitchburg, for blind fastener, (patent applied for), ,25
To W. E. Arnold, of Fitchburg, for set of shavers or drawing knives, beautiful specimens, ,25
To Waldo Wallace, of Fitchburg, for set of tools, measures, boxes, pails and tunnel, very nice work, 1,00
J. L. Tenney, of Fitchburg, exhibited three pairs of very good boots, but not the required number to compete for premium.
To Solomon W. Ruggles, of Fitchburg, for a peculiar kind of wind machine, ,50
To Gardner Morse, of Leominster, for his splendid case of shell and horn combs, 1,00
To Ellen L. Smith, of Fitchburg, for a very good rag carpet, a good taste displayed in the arrangement of colors, ,50

To Mrs. I. B. Woodward, of Fitchburg, for five skeins of yarn, $0,25

W. & W. Whitney, of Baldwinville, exhibited a churn. The Committee being in doubt about the practical operation, omit any award.

To P. Lothrop, of Fitchburg, for some very fine specimens of architect's work and plan of a road, beautifully drawn, 1,00

Entered on exhibition from the paper hanging manufactory, Fitchburg, eight samples of paper, of different design and beautiful styles.

G. Trask, of Fitchburg, for anti-tobacco tracts and medals of quite a variety, designed to improve the habits of men, 1,00

Entered on exhibition, one blacksmith's anvil, by O. & S. E. Brigham, of Fitchburg, with a patent attachment for turning and forming a snow-ball horse shoe, considered to be a great improvement. Too late for premium.

To Mrs. Thomas Trees, of Fitchburg, for best specimen of bonnets, 1,00

To some one, unknown to the Committee, who exhibited in a glass jar without a number, the best specimen of sugar cane syrup, ,50

To S. M. Longley, of Shirley, for the second best specimen of sugar cane syrup, ,25

To Mrs. M. M. Gage, of Fitchburg, for a very fine jar of plum preserve, ,25

All of which is respectfully submitted.

OLIVER HOWE, For the Committee.

FANCY ARTICLES.

The Committee on Fancy articles would report that they found a large number of fancy and useful articles spread upon the walls and tables, to decide upon the merits of which was no easy task; yet they remembered "that a thing of beauty is a joy forever" in the works of Art, no less than in those of Nature. While our thoughts and acts in these days of financial embarrassment are necessarily turned to the practical, it is pleasant to see in the specimens of skill, taste and handiwork of our wives and daughters, an evidence that this department of our annual exhibition has received a due share of their attention.

The Great Author of all beauty has given us an example in the construction and adorning of His works, of ornament the most lavish; and who does not know their influence to elevate and enoble our nature, otherwise tending to selfishness and that which is groveling. The influence arising from works of taste is not confined to the few, but to all who are privileged to look upon them, so that all who have designed or constructed a beautiful article may feel that they have added to the common stock of the world's happiness.

Various useful articles of worsted knitting work were contributed by Mr. S. Wallis, of Fitchburg, and we take great pleasure in noticing this branch of industry in our midst, the quality of which is said not to be excelled in this country, and moreover shows us that we are not dependent upon the foreign manufacture.

Your Committee will hardly reach a tithe of the articles in this department on exhibition, and they feel called upon to say, that a large number of contributors would have received premiums if it had been in their power to bestow them.

We award the following premiums, viz:

M. A. Beckwith, aged 65 years, for stand wrought in beads, 7000 in number, $1,50

M. Dora Whittemore, landscape painting in oil, 1,50

Mrs. Timothy Brown, embroidered muslin cape,	$1,50
Carrie A. Smith, embroidered skirt,	1,00
K. L. Marshall, stand in oriental painting,	1,50
S. Wallis, worsted knitting work,	1,00
Mary D. Stone, specimen of oriental painting,	1,00
Lizze R. Brown, landscape drawing,	1,00
Mary E. Haskell, grecian painting,	1,00
D. M. Whittemore, wax work,	1,00
L. J. Kendall, ottoman in worsted,	1,00
A. Brooks, flannel embroidery,	1,00
Sarah Pratt, sofa pillow,	1,00
J. W. White, specimen of hair work,	,75
Lizze M. Foster, shawl embroidery,	,75
Mary Ryan, shirt bosom,	,75
Mary D. Stone, oil flower painting,	,50
J. W. White, leather picture frame,	,50
C. E. Becker, specimen of starching and ironing shirt bosoms,	,50
E. Works, embroidered under sleeves,	,50
Laura Tilden, childs knit skirt,	,50
L. J. Brown, embroidered slippers,	,50
Nellie C. Lewis, wrought lamp mat,	,50
C. S. Burton, oriental painting,	,50
E. A. Newell, for bonnets,	,50
M. Frost, leather picture frames,	,25
Abby L. Goodnow, embroidered flouncing,	,25
Lizze P. Stone, wrought moss mat,	,25
Helen E. Tolman, crochet mat,	,25
S. M. Lord, knit mittens,	,25
G. P. Rice, crochet mat and mittens,	,25
Ruth Stanley, aged 78 years, plain knitting,	,25
Mrs. Pratt, aged 98 two pairs of hose,	,25
A child 14 years old, silk patch work,	,25
Emily C. Hodgdon, crochet collars,	,25
Eliza Trask, ladies cap,	,25
W. G. Wyman, wax flowers,	,25
Elmira Raymond, silk embroidery,	,25

L. H. BRADFORD, For the Committee.

FARMS.

The Committee on Farms have not been called upon during the present year to perform any duty, for the reason that no man in all Worcester North had the courage or disposition to subject his premises and operations to their scrutiny and comments. One farm was irregularly and very late in the season offered for inspection. It would have been visited had not the members of the Committee lived so remote from each other, that arrangements for the purpose could not be made in season. It is much to be regretted by your Committee that they have not been called upon to perform a very pleasing as well as instructive duty, aside from the good cheer with which they have heretofore been greeted, as in no other way can information be so well obtained as through an interchange of opinions, and the results of experiments, in farm operations. The object of every man engaged in agriculture is, or ought to be, to become a good farmer. To attain this end he must not only study the laws of production, but he must also understand how to dispose of his products. He is but half of a farmer, as many of us know by sad experience, who having raised good crops, is unable to dispense them to his advantage. Neither do we look upon that man as an efficient and intelligent farmer, who spends large sums of money upon costly buildings and pseudo improvements, and who at the same time cannot show a satisfactory balance sheet either present or prospective. Progress ought to be the aim of all, and to make improvements yearly by increasing the productiveness of our land, and at the same time doing many things to render home more attractive and pleasant is progress of the right stamp. He is the true farmer who discovers an abiding interest in his vocation, who makes his business an efficient means of support, and who by diligent perseverance and energy accomplishes something each year. Real scientific farming may not be often found among us, but successful and profitable results ought to be every where the rule. It is de-

voutly to be wished that more social intercourse may be carried on between our friends, and that next year the Committee on farms may have many interesting examinations to relate, and much useful information to impart.

EZRA KENDALL, *Chairman.*

GARDENS.

There was but one Garden entered for premium this year. That was by Mr. John M. Sawtelle, conductor on the Fitchburg Railroad, a gentleman you will always see with a flower in his mouth.

The garden of Mr. Sawtelle is near the house of Mr. Abel F. Adams, and has a gentle slope to the east and south; soil good, or may be made so. Some parts of it are rather wet. This may be obviated by deepening the soil and under draining.

The Committee made their first examination June 30, 1857. The garden was tastefully laid out and embellished with flowers, ornamental trees and shrubs. We did not find every thing here which belongs to a kitchen garden, but we found a good variety of garden vegetables, such as peas, beets, onions, carrots, lettuce, potatoes, yellow and sweet corn, common and cherry tomatoes, squashes, cucumbers, melons, cabbages, salsify and rhubarb; fruit trees, as apples, pears, cherries and plums; raspberries, Rochelle blackberry, a bed of strawberries, and grapes. The plants then looked well; the ground was clear of weeds and in good condition.

August 24th. We made a secend examination at this time. The ground was pretty thoroughly covered with vegetation and clear of weeds for so wet a season. There was a large bed of carrots which looked remarkably well, corn good, squashes very prominent, running over every thing in

COLLEGE

their neighborhood, even the tops of the corn; tomatoes were ripening and were very good.

November 5th. We made our third visit; most of the vegetables had been gathered. We found a man harvesting the carrots which looked so finely in August. They were small though not thick; this we believe is the general character of carrots and beets this year in this region. Your Committee think this is caused by the great amount of wet weather during the season. This is the first attempt at gardening by Mr. Sawtelle, and we think, considering that circumstance, he has been quite successful. He has made some mistakes, but they are such as are made by many much more experienced cultivators. The most glaring was the arrangement of his vines; we found in the same compartment, squashes, cucumbers and melons, each too thick among themselves and too near each other. This is a very common mistake with many *who consider themselves* experienced gardeners.

The Committee are unanimous in awarding to John M. Sawtelle, of Fitchburg, the second premium of $3,00.

JONAS A. MARSHALL, *Chairman.*

ORCHARDS.

The Apple Orchards entered for premium were the following: Joshua T. Everett, of Princeton, entered one; John Brooks, Jr., of Princeton, two; and Ephraim Graham, of Lunenburg, three. One Pear Orchard was entered by Jabez Fisher, of Fitchburg. These orchards your Committee have examined with that care and thoroughness, necessary to enable them to come to a just and satisfactory decision as to their respective merits; and in the trip which they made for this purpose, the pleasure of the journey was much

enhanced by the kindness and hospitality with which they were received and entertained.

After examining the orchards, and carefully perusing the accompanying statements, we have decided to award the following premiums:

To Ephraim Graham, of Lunenburg, for his Apple orchard, No. 1, the first premium of, $8,00

To Ephraim Graham, of Lunenburg, for his Apple orchard, No. 2, the second premium of, 4,00

To Jabez Fisher, of Fitchburg, for his Pear orchard, the first premium of, 10,00

So much information is now spread before the community through the medium of books, newspapers, and public lectures on the subject of fruit trees and orchards, that it will not be possible for your Committee to entertain you with any original matter on the subject that will be worthy a place in the agricultural literature of Worcester County. The most we can attempt to do, is to reiterate some truths that we deem important.

And first, in the planting of an orchard it is very important that a correct judgment should be exercised in the selection of the spot for its location. For it is not a temporary location, to be easily changed if we find we have made a foolish blunder, but is one for life, and has much to do with success in the matter. It should be shielded as much as possible from the west and north winds. The south-east slope of a hill may be considered a favorable position, and a deep loamy soil the best.

Second, the soil in which the trees are planted should be kept under cultivation for the first four or five years. Thus the ground being often stirred, is kept light, and the young roots are thereby furnished more readily with air, moisture and nutritious gases, and solutions of substances in the soil, by which the trees are made to acquire a more rapid growth, assume a more thrifty appearance, and become in all respects a better type of what is known as "Young America,"

than is the case when the land is laid down to grass. The difference is much greater when the orchard stands on the side of a hill, for then the refreshing showers of summer, instead of penetrating the ground to invigorate the languishing roots, are turned off by the hard sod, and wash into the valley below.

Third, we desire to refer to a matter which is far too much neglected by the farmer, and that is a constant care and attention to the proper training of the trees during their years of infancy and childhood. Early fix in your mind the picture of a perfect tree, in form and proportion, and begin immediately to train every tree in your orchard to the standard of your beau ideal. It will be impossible for you to make every one assume the same type and degree of beauty, for trees, like children, have their peculiar hereditary predispositions, which may not be entirely overcome. But by a suitable watchfulness, every tree can be securely guarded against any palpably vicious development of limbs, which by their straggling character, and by repeatedly crossing each other, form an almost impregnable barrier to sunlight and air, thus materially lessening their future usefulness as fruit bearers if left in this state, and vitally affecting the health of the tree, if, as is often the case, the limbs are cut away after they have attained a large size.

In your leisure moments go forth into your young orchard carefully observing every tree, and whenever you find a shoot coming forth in an improper place or assuming an improper direction, take your knife and cut it away. Take care of the little faults of your trees while they are young, and they will have no great ones for you to correct, when they attain maturity.

We also wish to make a suggestion in relation to the feasibility of increasing our present number of varieties of apples. It is a practical question whether it is desirable to make the attempt. It seems to us that under the present system very many of our existing varieties will run out, while no provision is made for any addition whatever. Now we think it

desirable that some system be adopted whereby the propagating powers of nature, in developing specimens of excellence from the seed, may not be entirely suppressed. Grafting and budding are the works of art, and we are not disposed to underrate their advantages. But we think that the subtle and wonderful powers of nature should also have a chance to operate in the great work of progress and development. For all new varieties in the future, like those in the past, must come of seedings; and the old saying, that "there is as good fish in the sea as ever was caught," is applicable here. Nurserymen raise trees for the market; they therefore rear such as the community wants, and generally none others, and as the community demands but a few standard varieties, to those varieties they confine their operations. It is to them no paying business to go into an adventurous chase after new ones. The proper class of persons to engage in this enterprise is the farmers; they generally have plenty of land and can do it cheaper and with less inconvenience than any one else. Our plan would be to procure the seeds of fruits, themselves the products of seedlings of good, healthy growth, and of an improving state, and plant them. When the stocks are of a suitable size to transplant, make a judicious selection of the number you wish, and arrange them into a small orchard on the land you may appropriate for the purpose. When they come to a bearing condition, it will be apparent if any are of a quality worth perpetuating; you may chance to have a specimen or two of a very superior order. In this case you will give to the world a valuable accession, while to yourself it will be a matter of innocent pride and gratification, besides attaining historical immortality by embalming your name in the christening of the apple. The bearers of worthless fruit can be grafted with any kind desired, and that without losing more than three or four years. Any other means that may be accessible may be availed of for procuring superior specimens not generally known, such as for instance going to orchards lying back in the country, many of which have some specimens of most

excellent fruit, but being without a name, are not known beyond their own neighborhood, and if no one takes the trouble to introduce them to society, they will soon be lost to the world.

We offer in closing, a few miscellaneous reflections.

Fruit trees are now assuming an importance in the community equalled by few products of the soil.

The little care and labor that are usually necessary in the attending growth, and in the gathering of the fruit, the ready sale and remunerating prices of good, merchantable fruits, particularly apples, often render the income of a few acres of land a very desirable and pleasant addition to the profits of the farmer. To be sure, for a year or two past, (in this immediate vicinity at least,) the fruit trees have failed to yield their wonted bounty, a liability incident to almost every crop. But taking a series of years together, an orchard in a well selected place, to which due attention has been paid as to the selection of the kinds of fruit, healthy, hardy stocks, and good healthy bearers; and to which ordinary care has been bestowed on the soil in which they grow, and to those insects, which in great numbers are so destructive to fruit and vegetation, we think that no crop will yield a better per cent. profit than apples, peaches and pears.

The time may come when an abundance of supply will result in a great diminution of price, but that time is far distant. And even should it come in our day and generation, no great catastrophe would occur thereby to the farmer, while a most invaluable blessing would be bestowed upon the community. For, may it not be believed, that but few things aside from the actual necessaries of life would contribute more to enhance the comfort, health and pleasure of the families of our cities and villages, to those particularly in moderate and indigent circumstances, than a supply of good winter fruit, of apples and pears. For who will dare say that there is no social attraction in a bowl of apples when surrounded by a merry band of swains and maidens? and what lover of fruit will deny that the bowl of apples

itself does not furnish much of the inspiration? Pardon us if in tracing out the moral influence of an apple, we advance a little into the regions of metaphysics.

We are all aware of the potent power of memory to awaken in the breast long forgotten sentiments of goodness, to inspire the halting with energy, the wavering with confidence, the desponding with hope, and the fallen with a redeeming force to arise and walk again the paths of virtue. We all know too, that law of association, whereby one little forgotten incident revived in the mind, awakens another, and that another, and so on till all the rills of memory combine in one mighty river, and on its current we are borne back through the years of life, till we stand a child again in all the artlessness of being. And then a mother's love, a father's counsel, and a sister's affection speak to us with a power which no pulpit voice can equal, and roll upon us tides of virtuous emotions, incite resolutions for good, and elevate the soul to those Pisgah heights of moral excellence, from whose lofty summits we view the goodly land of promise.

Now of the thousands of bowls of apples that grace the hearth circles of thousands of humble abodes through the land, how many through the law of association, acting upon and stirring the deep waters of the memory may prove a messenger of good to some participant. For how many at the sight of the dish of ruby cheeks, and the taste of the luscious fruit, would be carried back in memory to the distant homes on the old farms, where in the simple activities of virtuous, rural life, with its comforts and its joys, the halo of childhood surrounded them, and the gilded skies of youth bended over them, but in which with adventurous eyes they fancied they saw the star of fortune move far onward till it went and stood over some great city or large manufacturing town. And thither they went, there to be taught the old truth that thousands had learned before them, that "all is not gold that glitters," that the dreams of youth have rarely any counterpart in the realities of mature life; and how many in these particular hard times sigh for the simple comforts of the rural old farm.

Who would not wish even from motives of simple benevolence to do something in the way of elevating the race? And when this object lies in the direct line of pecuniary profit every farmer should be stimulated to exert himself to increase very materially his production of good orchard fruits. Thus might *man* do much by the cultivation of the apple, to reclaim in the present, and avert from the rising generation, much of that evil which has fallen upon mankind, in consequence of that sad mistake which a certain *woman* is said to have made, in the matter of an apple, in the garden of Eden.

E. F. BAILEY, *Chairman.*

Ephraim Graham's Statement.

The Apple orchard, No. 1, which I offer for premium, consists of 97 trees, viz: Baldwin, Hubbardston Nonsuch and Pound Sweetings. It was transplanted in the spring of 1849. The holes were dug about 4 feet in diameter, and from 20 to 24 in. deep, and filled with compost manure, intermixed with leached ashes, together with the excavated sub-soil. After transplating, the whole field was seeded to grass with wheat, care being taken to have neither wheat nor grass grow within two feet of the trees. In August, after the wheat crop was removed, about a peck of compost manure mixed with unleached ashes was put to each tree. During the summer of 1850, neither grass-roots nor weeds were allowed to grow so as to interfere with the roots of the trees; the same precaution was again taken in 1851. In the autumn of '51, 1-6 of a load of manure from the barn cellar was spread around each tree, and turned in with the plow at a distance of 4 feet each side of the line of trees. This, in 1852 was planted, thus having alternate "strips" of grass and potatoes; the same was again done in 1853. In 1854, 1-6 of a load of manure

was spread upon the grass-land opposite each tree, and the whole plowed and planted with corn and potatoes. In 1855, the whole was planted with cow or stover corn without manure. In 1856, about 18 or 20 loads of manure, including two loads of leached ashes, were spread upon the whole field of one and half acres, and again planted with stover corn. In 1857, the whole was again planted with stover corn and without manure, thus using manure in alternate years only. My trees have been washed from once to three times each year, either with soap suds, potash water, or a solution of urine from the barn celler, mixed with clay. But notwithstanding the repeated washings of all things and every thing that I read or think of, the *Borer* does his work to a greater or less extent, and the only sure preventive that I have found to check his ravages, is simply to follow him with the pruning knife and wire.

Orchard No. 2, that I offer for premium, consisting of fifty-three trees, mainly Baldwins, was transplanted in the spring of 1851. The process of making the holes, manuring, &c. was nearly the same as in orchard No. 1, and the whole seeded to grass with oats, care being taken the first and second years to prevent grass roots and tree roots from occupying the same ground. In 1853, a few hills of potatoes were cultivated near the trees, and thus the patato plat has been increased each year, so that at present the space occupied by the potatoes is nearly a square rod, giving ample room for the tree roots to grow without being injured by grass roots.

Two opinions seem to prevail in relation to plowing orchards; one, that the ground should be plowed quite shallow, just turning the surface or simply using the cultivator, and that the small fangs from the roots should not be severed from the root, as these little fangs with their thousand mouths imbibe all the nutritious substances in the soil that goes to the growth and nourishment of the tree; while others contend that orchards should be plowed with a sharp plow and deep, and a benefit is the result by cutting off the small fangs or rootlets from the main root, as two or three

times as many fangs will shoot out from the end of the root thus cut off as before, thus giving more life and vitality to the tree.

My practice until the present year, has been to plow very shallow; but it is agreed by all that the practice of "heading in trees," as it is called, to some extent should not be neglected, as two shoots will usually spring out from the part cut off, thus making a more perfect top to the tree; hence this theory seems to favor the deep plowing and cutting off the small rootlets.

From the little experience that I have had in growing trees, I am statisfied that the ground should be kept under the plow, and hoe for the first eight or ten years; that is, we must either give up the tree roots or grass roots. I have at this time in my mind several orchards that have been out eight, ten, and even twelve years, and were the owners to-day desirous of growing good and respectable trees, it would be for their interest to remove every tree from their grounds and transplant young trees from the nursery; here again care and judgment should be used in selecting good, healthy trees, those that are well supplied with roots.—Better pay 25, 37½, or even 50 cents for such trees, than have others of the same age and size, given.

I also know of one orchard in particular, transplanted in 1849, the same year of my orchard No. 1, that is at least a year, and perhaps two years in advance of mine, proving conclusively that care and attention are as requisite for the growth of a young orchard, as for a field of corn.

Jabez Fisher's Statement.

The "statement" required by the rules of the W. N. A. Society being as I understand it chiefly if not entirely for the benefit of the public, I propose to include in that statement the history and management of the whole of my central Pear Orchard, the westerly half only of which, is entered for premium. Said half was planted in the spring of 1854. The easterly portion was planted in the spring of '55 and '56, and to some extent in '57, and there are still remaining a few vacancies to be filled. The orchard is intended eventually to comprise 1037 trees, of which one-third are upon pear stocks, and the other two-thirds are upon the quince.

The form in which the trees are set is that known as the modern quincunx, in which each standard tree occupies a corner of an equilateral triangle, the sides of which measure eighteen feet. In the centre of each triangle, (of which there are two to each standard,) at a distance of about ten feet five inches from each other, are placed those upon the quince. This arrangement gives to the trees a more equal distribution over the ground than any other, and secures to each the greatest amount of sunlight and air compatible with the distance at which they are placed one from another. It also allows of horse cultivation in three different directions, a most important aid in the after management. The entire orchard occupies about two and one-third acres. The soil is a strong loam, resting upon a clay bottom, with mica slate underlying at a depth of five to fifteen feet. The soil is one retentive of moisture, and requires drainage.

In the spring of '54 the land was a clean piece of mowing. I commenced by digging holes five feet in diameter and twenty to twenty-two inches deep. The holes were filled with sods and loam that were thrown out in digging, and enough more was borrowed from the sides to set the trees in. The trees were procured from Hon. M. P. Wilder, of Dorchester, the standards being mostly worth a dollar each, and the dwarfs were imported trees, two years from the bud on the Angers quince. The standards were placed rather high

in the ground, though after the soil had settled, some of them proved to be too high, and a few have been lowered. The shape assumed by the roots of some of the trees was such that the action of the frost has since been to lift them out. The pears or quince I placed so that the junction of the pear with the stock should be two or three inches below the surface, but after the soil had become settled, the point of junction was sometimes above the surface. I have since endeavoured in planting to bury the junction four inches deep, after the soil has settled.

The manures used were leached ashes, coalpit bottom, Mapes' improved superphosphate of lime, and woolen waste; each being used alone and in combination with the others. They were mixed with the soil at the time of setting, and a few rows were left without manure. I have not been able up to the present time to trace the influence of either of these substances with any distinctness.

The cultivation in '54 was simply once hoeing and afterward pulling the weeds and leaving them on the surface. In 1855, the whole was plowed and planted with potatoes, with guano and superphosphate of lime in the hill. In 1856, it was again planted with potatoes, and manured in the hill with horn shavings and leached ashes. The trees received a pailful each of strong liquid manure from the barn cellar. The present season the trees were treated with the same application, and the crop is cucumbers for pickling, manured in the hill. This crop is a very good one for the purpose as it is not at all an exhausting one, and it admits of plowing and cultivating a number of times in the early part of the season before planting.

The growth of the trees has been fair throughout the different seasons, the average since the first year having been perhaps, twelve inches of new wood for each year. The best growth was in '56, when shoots in many cases exceeded four feet in length. The present season gave promise of an equal increase, but when the orchard generally had made from six to ten inches of new wood, the foliage and small

twigs became covered with honey dew. This excretion was at first a limpid watery fluid, having a sweet and slightly sickish taste. It became inspissated in a short time and then appeared much like honey. It attracted thousands of flies, bees, wasps and other insects, that feasted upon it with much avidity. At the same time many of the leaves, especially those upon the new growth, dropped off; all extension ceased, and the remaining leaves and the wood became covered a black incrustation, and presented altogether the appearance of October. This occurred in the latter part of July and early in August, and but very few of the trees made any attempt at a second growth. The cause of this phenomena is not well understood, though I have some confidence in the assertion that had it been a dry season, it would not have occurred.

The whole growth for the four seasons past not having been quite satisfactory, I am (October) placing around each tree two or three shovels full of night soil. This is to be covered by a conical mound of loam about three feet in breadth and one in height, for the triple purpose of covering the manure, securing the trees against the chance of the depredations of mice, and preventing the injurious action of frost, which in heavy soil lacerates the fibrous roots and stunts the tree in its growth. This latter difficulty is almost entirely prevented by thorough draining, and to my mind, at least on my own land, draining is of vastly more value to an orchard by keeping the water out of it during the season of frost, than in the summer, when for the most part the land is dry enough. Before distributing the night soil I strew around each tree half a pound of the scales of protoxide of iron, such as are found around the blacksmith's anvil. Next spring the hillock of loam will be partially levelled, and the manure mixed with the soil.

The object which I have kept in view in pruning thus far, has been mainly to promote wood growth rather than the formation of fruit. For this purpose I generally prune just as the buds are swelling in spring. This I am aware is

theoretically the wrong time; directly after the fall of the leaf being usually considered the more appropriate period. I have found however that when pruning takes place in autumn or winter, the terminal buds upon which I rely for the extension of the leading shoots become detached, killed, or so far enfeebled, that they refuse in spring to make any extension, and the second or third bud from the end becomes the extending shoot. By waiting until the buds commence swelling in spring, I am able to select one for the prolongation of new wood, having the most proper position, and at the same time giving promise of vigorous growth. This applies only to the shortening in of the leading shoots. The removal of superfluous limbs should take place in autumn, and the surface of the wound covered with some preparation to keep out the air. An alcoholic solution of shellac answers the end better than anything else. Besides this kind of pruning, the object of which is to promote wood growth by keeping up a preponderance of strength in favor of the roots, I at the same time keep an eye to the eventual production of fruit. For this purpose I practise pinching out the ends of the leading shoots after they have made from ten to twelve inches growth. Such an operation, without apparently weakening the tree, causes the wood already made to become ripened, and the buds throughout its length to assume a more decided character and eventually become fruit spurs. This treatment is applicable only to those varieties which are inclined to vigorous woody growth. For some thrifty growing varieties like the Urbaniste, which show no disposition to fruit, I reserve all pruning to the season of growth, during the latter part of June. This gives the tree a sudden check, and instead of spending its force in making new wood, it applies it rather to the formation of fruit spurs, without which no tree can be fruitful.

Another object gained by continued pruning is to render the tree stocky. That is the size of the trunk becomes large in proportion to its height. Low, stocky trees are more fruitful than those that are tall and spindling, and their first full crop does not break them down or destroy their vigor.

The form which I prefer for pears on quince roots, is what is called half standard. The branches which form the head of the tree leave the main stem at about two feet from the ground. This form gives more ease and facility of cultivation than the pyramid, and is more easily produced and kept up. In pruning standard trees less heading in is required, but the objects are in the main the same, i. e. to promote growth and to obtain a proper disposition of the branches.

The trunks of all the trees were washed in the spring of '56 with a mixture of 1 lb of potash, 1 pailful of water, and a shovelful of fresh cow-dung. I intend to wash them again in the spring of '58, but shall use a strong suds made from soft soap rather than any mixture containing dissolved potash.

The following is a list of the principal varieties with a few observations appended to each, such as are suggested by their appearance at the present time.

Louise Bonne de Jersey, one hundred and five on the quince. A fair grower and an early bearer.

Beurre d'Anjou, twenty-six on pear and forty-two on quince. Grows well on pear, but little on quince, preferring to fruit before it has the ability.

Urbaniste, ten pear, fifty-eight quince. Handsome and free grower on both stocks. Shoots rather slender, with small present promise of fruit.

Beurre Diel, sixty-seven quince. Makes a pretty good, stocky growth.

Vicar of Winkfield, eight pear, sixty-two quince. A free strong grower and a handsome tree on both.

Lawrence, sixteen pear and nine quince. Free but slender growth on pear. Very unpromising on quince.

Flemish Beauty, sixteen pear, forty-three quince. Grows well on both, though on the quince it hesitates a little for a year or two.

Glout Morceau, forty-nine quince. A fine, stocky, handsome tree.

Duchesse d'Angouleme, forty-six quince. Growth only moderate.

Winter Nelis, twenty-five quince. Rather a handsome, and more stocky grower than is usual on pear.

Bartlett, twenty-eight pear. Fair growth.

Beurre d'Amanlis, five pear, twenty-two quince. Strong, but straggling and open grower. Fruits early on both stocks but much finest on quince.

Easter Beurre, twenty-six quince. Grows moderately.

Belle Lucrative, ten pear, ten quince. Fair growth, fruits early on both.

Seckel, seventeen quince. Growth slow. Not promising.

St. Michael, seventeen quince. Moderate grower.

Doyenne Boussock, seven pear, nine quince. Grows pretty well on pear. On quince very poorly.

Doyenne d'Alençon, three pear, six quince. Same as Doyenne Boussock.

Noveau Poiteau. Grows well on quince.

Epine Dumas, quince. Good.

Figue, quince. Very good grower; makes a handsome tree.

Soldat Laboreur, quince. Like the Figue.

Onondaga, pear. Good grower, fine tree and early bearer.

Beurre Langlier. Strong grower on pear.

Buffum, pear. Very fine, strong, upright growth.

Beurre d'Aremburg. Moderate grower on pear.

Marie Louise, pear. Good growth. Weeping head.

Beurre Giffard, quince. Free slender growth with early bearing.

I might enumerate some fifty or sixty more varieties of which there are from one to five specimens each, but further experience is desirable; and indeed of those already specified I may have occasion hereafter to modify my opinions as herein expressed. Three or four seasons growth will hardly afford the data upon which to approve or condemn a tree, which may be fifty years in coming to its full development.

GRAIN.

Although the number of fields offered for our inspection was comparatively small, we have reason to believe that the spirit of rivalry, the desire to excel, and the determination to make their fields yield more abundant harvests, have not died out from among the members of our Society; but that the principle of not being satisfied with present attainments is still alive and active.

The fact that the season, especially the early part of it, has been very unfavorable for the growth of large crops of grain, and for successful experiments in the cultivation thereof, upon most of our soils; and the early date, (July 1st,) on which our rules require the entries to be made, have indueed many who intended to compete for the Society's premiums to withhold their crops. In several instances the fields intended for premium crops, or parts of them, were wet and cold until quite late in the planting season—in many the seed did not come up well, and in some was replanted. The result was, that at the proper time for making entries, the appearance was unfavorable, and the owners were discouraged from entering. A few others forgot the time for entering, or through negligence, defered attention to the matter until it was too late, and so were deprived of the privilege of competition which they expected. This should not be so: let our farmers enter their crops intended for premiums, and make known their failurés, and the causes of them, as well as their successes, that others may guard against and avoid the former, as well as imitate the latter; and don't neglect to attend to the entries in season; remember that it is an easy matter to withdraw a crop when desirable if entered, but that if the time for entering has once passed, then the crops "can't come in" if never so "good looking."

CORN.

We award the first premium of $6,00, to Jabez Fisher, of Fitchburg, whose field, according to our estimate, produced ninety bushels per acre of sound, well-ripened corn.

The second premium of $4,00, we award to Alonzo P. Goodridge, of Fitchburg, whose field, by the same estimate, yielded eighty-one bushels per acre.

The Committee hesitated long in considering the claims of these two competitors. It was exceedingly difficult to decide which was the most profitable crop. The fact that Mr. Goodridge has so improved an almost profitless pasture as to make it produce upwards of eighty bushels of good corn per acre, at a cost of about fifty-five cents per bushel, we deem worthy of notice, and very creditable to him.—We think Dr. Fisher's corn cost a little more per bushel, although his method of manuring was such as to render it impossible for us to ascertain precisely; and we do not suppose that the cultivation of the crop added materially to the value of the land, as in the other case; but then the crop was larger, and the corn, although of the same variety—King Philip—was better, the ears being more fully developed, and the kernel brighter, and more plump. The shrinkage in weight on the ear during the twenty-four days previous to the time of our decision, Nov. 10th, was three pounds less per square rod. The fact, also, that he manured mainly with a fertilizer which is usually allowed to run to waste, and thus demonstrated clearly the importance of saving and applying to our crops such articles, we considered worthy of being taken into the account.

The third premium, of $3,00, we award to Samuel Farwell, 2d, master of the Fitchburg town farm, whose corn, an eight-rowed yellow variety, presented a very fine appearance, the ears being well developed, of good size, and completely filled. He had but twenty and one-half hills to the rod. We think if he had planted twenty-five or thirty, he would have had a larger crop, with little if any more expense. The product was nearly seventy-five bushels per acre.

The fourth premium, of $2,00, we award to Lawrin Pratt of Fitchburg. His corn was a small, early variety; the yield comparatively small, and the expense of producing it small. We would suggest the question whether a larger variety, and more liberal method of manuring and cultivating, would not afford a larger and more satisfactary return.

A field entered by Cyrus Thurston, of Fitchburg, was withdrawn. He has been experimenting with guano; having planted one field five successive years with corn, using no manure except guano, since the first or second year, when muck and ashes were freely applied. His yield was about fifty bushels per acre. We regret that his statement is not put in, as his experiment might aid in solving a vexed question.

John Brooks, Jr., of Princeton, entered a field which did not come up to our standard, mainly in consequence of not being fully matured.

WHEAT.

We regret to say, that we found but one crop which, by the rules of the Society, was entitled to a premium, and that, we did not deem worthy of the first.

We award the second premium, of $3,00, to John Brooks, Jr., of Princeton, whose crop was twenty-six and two-thirds bushels per acre, of Black Sea wheat.

We examined fields entered by A. P. Goodridge, and Edward Smith, of Fitchburg, both of which appeared well.—Mr. Goodridge's particularly, afforded a large growth of straw, with long heads, apparently well filled; and we were much disappointed to find the kernel had shrunk so as to bring the weight below the standard fixed for the lowest premiums. We recommend a gratuity of $1,00 to each of them.

A field was entered by Samuel Farwell, 2d, and withdrawn. We have not learned the particulars.

A request to examine a field raised by Levi Kendall, of Fitchburg, was sent us, but by some misunderstanding, which we regret, was not received in season for the exami-

nation. We have not received Mr. Kendall's statement, but learn from others that his crop was excellent for the season. Very likely he would have been entitled to a premium, but for the misunderstanding.

We have not seen any specimens of winter wheat. Would it not be well to try it more thoroughly? It may follow early potatoes, or corn removed early, and stooked outside the field, or may succeed rye, oats or barley, and if a moderate allowance of compost be harrowed in, and grass seed sowed with it, it will leave the land in excellent condition for future crops of hay.

BARLEY.

We award to Samuel Hawes, of Fitchburg, the first premium of $3,00 for the only lot of Barley entered, which was of superior quality, and produced forty bushels per acre, allowing forty-eight pounds per bushel.

WHITE BEANS.

Only one entry. We award the first premium of $2,00 to Cyrus Thurston, of Fitchburg, and would call attention to his statement which will accompany this report. The weight of beans on the rod selected was nine and eleven sixteenths pounds, Nov. 10th.

There were no fields of rye or oats entered.

Our attention was called to an eighth of an acre of cabbages raised by Wm. Murnane, of Fitchburg, sixty-eight to the rod, averaging from eight to ten pounds each. Mr. Murnane did not enter his lot in season for a premium, but we recommend that a gratuity of $1,00 be paid him.

In view of the facts elicited by the accompanying statements, and the examinations made as above, we submit the following remarks.

To guard against the difficulties which have been encountered this season, and to insure success in the cultivation of corn, the utmost care should be exercised in the selection and preservation of seed. It should invariably be

selected from the field, before the crop is harvested. If the variety is not already sufficiently early, those ears which ripen first should be taken from stalks which produce two or more ears, well formed, and perfectly filled. If the stalks are short, and the ears grow near the ground, all the better. If the variety be sufficiently early, and not inclined to excessive growth of stalks, select those ears which are most perfect, without regard to time of ripening or size of stalk.

Having thus made the selection, the ears should be braided together, by husks left upon them, and hung where they can dry perfectly and be protected from moisture until the time for planting. If these rules had been strictly adhered to, in reference to all the corn planted the past season, we believe we should have heard far less complaint of seed not coming up, and that an addition would have been made to the harvest of the country of some thousands, perhaps millions of bushels.

Next, the soil should be properly prepared. It ought not to be stirred while wet and cold; especially the seed should never be put in until the land is dry and warm. It would be better to wait until very late for the purpose, and then plant an early variety, if corn must be planted on land that is not dry in season; and better still to under-drain the wet portions of the fields, and so have them prepared for the production of any crop, in any season. In one instance which came under our observation, a field which was excessively wet, was left to dry until the 17th of June, and then planted with an early variety, being but lightly manured, and hoed only once, and produced at the rate of upwards of fifty bushels per acre, of sound, well ripened corn. In another a similar field was under-drained, then planted, and in harvest time the location of the drain could be distinctly traced for twenty rods through the entire length of the field, by the superior size and quality of the corn over and beside it; when but for the drain, the crop, if there had been any at all, would not have paid for the cultivation. The growth of turnips also in the vicinity of the drain was fully doubled.

With regard to manure, we think it should be spread and thoroughly intermixed with the soil, with the exception, perhaps, of a little for the hill or drill, to give a quick start. In planting, we believe that arrangement to be best, which distributes the stalks most evenly through the field. To illustrate; suppose one man grows twenty hills to the rod with six stalks to the hill, giving one hundred and twenty stalks per rod; another satisfied with the number of stalks per rod, wishes to distribute them more evenly and still retain facilities for easy cultivation, and therefore arranges them in thirty hills with four stalks per hill; still another equally satisfied with the number, and not fearing a slight increase of labor in the cultivating, so arranges as to have five and a half rows per rod, and the stalks evenly distributed in the rows, which, throwing aside the small fraction gives drills three feet apart, and stalks nine inches apart in the drills. We believe the man with thirty hills and four stalks to the hill, will, all other things being equal, obtain a larger crop than the one with twenty hills and six stalks per hill, and the one with drills, a larger crop than the others, although all have the same number of stalks per rod.

The number of stalks in a given space, should depend upon the habits of the variety, if inclined to grow large and rank, there should not be as many as if of smaller growth.

We are more and more convinced that clean cultivation, and entire destruction of all weeds is of the utmost importance.

W. G. WYMAN, *Chairman.*

Jabez Fisher's Statement.*

The acre upon which my corn was raised is a strong loam, resting upon a clayey bottom. In 1855, the crop was carrots, manured with artificial fertilizers. In 1856, it was carrots and field beets in alternate rows, with three to four cords of barn cellar manure. In 1857, it was manured with four cords in bulk of liquid manure broad cast, and plowed with horse and oxen ten inches deep, May 19th. Cross plowed May 28th. Harrowed and furrowed out May 29th. Dropped in the furrows $10,00 worth of hen manure, and planted King Phillip corn May 30th and June 1st, one half in hills and one half in drills, five to the rod. Kernels in the drill five to eight inches apart. Hills thirty inches apart. Plowed one way and hoed the first week in July. One half of it was horse hoed and hand hoed the third week in July. Rains prevented the further cultivation, which left the surface level. Top stalks were cut the last of September, as wanted for feeding. Buts cut up in the early part of November.

Cost of preparing the land,	$6,00
" manure,†	10,00
" cultivation and harvesting,	14,00

Product, 90 bushels of shelled corn.

The portion planted in drills gave the greatest yield, but the difference was not ascertained.

---

* These and the following statements are made up from the answers which are given to questions contained in the blank forms which are returned by the several competitors.

† This does not include the liquid manure, which is a combination of the urine of the stock with the soluble portions of the solid manures, kept in a water tight cellar. Its value would appear to be very slight from the estimate usually placed upon it, but I am inclined to the opinion that when diluted to the bulk of the solid manure without litter, it is equally valuable, cord for cord.]

Alonzo P. Goodridge's Statement.

The acre upon which my corn was raised is a sandy loam. In 1855, it was a pasture. In 1856, the crop was fodder corn, manured with three hundred pounds of guano and plaster. In 1857, five cords of manure were spread broad cast, and it was plowed eight inches deep twice. At the last plowing three hundred pounds of guano were spread. Planted from 23rd to 25th of May with King Phillip corn in hills three feet nine inches distant one way, and two feet the other. Used the cultivator and hand hoe three times. Harrowed last of October.

Cost of preparing the land,	$5,00
" manure,	35,00
" cultivation and harvesting,	16,00

Product, 81 bushels of shelled corn.

Samuel Farwell, 2nd's Statement.

The acre upon which my corn was raised is a hard loam. In 1855, the crop was grass. In 1856, it was planted with corn, manured with thirty loads of green manure and loam mixed. In 1857, eight cords of manure were spread and plowed in seven inches deep, the last of May. Planted the last of May with a corn planter. A cultivator was used twice. Harvested in "the old way."

Cost of preparing the land,	$4,50
" manure,	30,00
" cultivation and harvesting,	14,25

Product, 75 bushels of shelled corn.

Lawrin Pratt's Statement.

The acre upon which my corn was raised is a light soil, upon a bottom of the same character. In 1855 and '56, the the crop was grass, without manure. In September '56, plowed once seven inches deep. In May 1857, harrowed. Manured in the hill with three and a half cords of compost, composed of two parts of mud and one part horse, cow and hog manure. Planted the 22nd and 23rd of May, a small eight rowed yellow variety. Cultivated twice with a plow and hand hoe. Harvested from the 1st to the 20th of October.

Cost of preparing the land,	$5,00
" manure,	12,00
" cultivation and harvesting,	12,50

Product, a little over 60 bushels of shelled corn.

John Brooks, Jr.'s Statement.

The acre upon which my crop of wheat was raised is a gravelly soil, with a clay sub-soil. The crop in 1855 and '56 was corn, manured with fifteen loads of compost, (one-third meadow muck, and two-thirds cow manure,) and one hundred and fifty pounds guano each year. In 1857, the the same kind and amount of manure was applied and plowed in during the middle of May, eight inches deep. Cross plowed May 26, the same depth. Two bushels of Black Sea wheat were sown May 26th, and harrowed in. Reaped September 4th.

Cost of preparing the land and planting,	$4,50
" seed,	4,50
" manure,	21,50
" harvesting,	8,00

Product, 26 2-3 bushels wheat.
" 2567 lbs. straw.

Alonzo P. Goodridge's Statement.

The acre upon which my wheat was raised is a clayey loam. The crop in 1855 was corn, with twenty loads of stable manure. In 1856, the crop was wheat, without manure. In 1857, it was plowed twice about six inches deep, with two and one-third cords of stable manure, and twenty-five bushels of dry ashes. Two bushels of coffee wheat were sown the last week in April.

Cost of preparing the land, &c.,	$7,00
" seed,	4,00
" manure,	15,00
" harvesting,	4,50
Product, 22 bushels of wheat.	
" $5,00 worth of straw.	

Edward Smith's Statement.

The acre upon which I raised my wheat is a heavy soil, lying on a clay sub-soil. The crop of 1855 was potatoes, with ten loads of compost. The crop of 1856 was corn, with twenty loads of barn yard manure. In 1857, it was plowed twice, six inches deep. Two bushels of coffee wheat were sown May 13th, without manure. The seed was soaked in brine containing two quarts of salt, for twenty-four hours.

Cost of preparing the land,	$7,00
" seed,	5,00
" harvesting,	5,00
Product, 21 4-5 bushels of wheat.	
" about 1 ton of straw.	

Samuel Hawes' Statement.

The acre upon which my barley was raised is a clay loam. The crop in 1855 was potatoes and white beans, with eight loads of barn manure, and guano and plaster. In 1856, the crop was corn, with fifteen loads of a compost of meadow mud and loam, from under an old barn. In 1857, I applied five cords of manure broadcast, and plowed twice in May, six inches deep, and afterward cultivated it. Sowed May 26th.

Cost of preparing the land,	$5,00
" seed and planting,	4,50
" manure,	30,00
" harvesting,	10,00
Product, 40 bushels of barley.	
" 1 ton of straw.	

Cyrus Thurston's Statement.

The eighth of an acre upon which I raised my crop of beans is a very light gravelly soil, which in consequence of its sterile character, I have planted with white beans for five successive years. No fertilizers have been used but guano, except a light dressing of meadow muck and leached ashes in 1852 and '53. Not more than twenty pounds of guano have been used in any one year. My crop has gradually increased from year to year, which leads me to believe that my land has not been impoverished by this management. This year it was plowed once, about six inches deep; twenty pounds of guano were applied broadcast. Planted about one pint of pea beans, in hills three feet apart, on the 4th of June. Cultivated once, one way. Vines were pulled and threshed October 16th.

Cost of preparing the land and planting,	$0,83
" guano,	,75
" cultivation and harvesting,	2,00
Product, 193 3-4 lbs. of beans.	

ROOT CROPS.

The Committee on Root Crops and experiments in cultivation, find that there are more crops entered for premium this year than in previous years, which shows an increased interest in this important branch of agriculture. After a careful examination of the crops entered, and the statements we have received, we award the following premiums:

To John Brooks, Jr., of Princeton, for the most profitable half acre of potatoes, the first premium of, $3,00

There were two others entered, one too late for premium, and from the other we have not received any statement.

To John Brooks, Jr., for the most profitable eighth of an acre of English turnips, the first premium of, 2,00

To John Brooks, Jr., for his second lot of English turnips, the second premium of, 1,00

To John Brooks, Jr., for the most profitable eighth of an acre of Ruta-baga, the first premium of, 2,00

To John Brooks, Jr., for his second lot of Ruta-bagas, the second premium of, 1,00

To Lawrin Pratt, of Fitchburg, for the most profitable eighth of an acre of onions, the first premium of, 3,00

There were five entries of carrots, four of which we found too light to compete for premium; that is, they did not have five thousand five hundred pounds to the eighth of an acre, owing probably to the season, which has been wet and unfavorable for their growth. From the other we have no statement.

There was one entry of sugar beet, but not an eighth of an acre.

For the best experiment in raising potatoes there was one entry, but we have no statement.

All which is respectfully submitted.

ABRAM S. DOLE, *Chairman.*

John Brooks, Jr.'s Statement.

The half acre upon which I raised my potatoes is wet, with a clay sub-soil. The crop in '55 and '56 was grass, without manure. The ground was plowed in the fall of '56 six inches deep, and cross plowed in the spring of this year eight inches deep. Two and one-fifth cords of barn yard manure were spread before the first plowing. The land was furrowed out, and four hundred and fifty pounds of plaster put in the hill. It was planted on the 9th and 10th of June, in hills three feet by two and a half, with from three to five potatoes in a hill. The variety was the Davis seedling, of which six and one quarter bushels were used. A plow was run between the rows once, and the crop dug October 6th and 7th.

Cost of preparing the land and planting,	$5,25
" seed,	3,12
" manure,	10,95
" cultivation and harvesting,	3,37

Product, 140 bushels of potatoes.

John Brooks, Jr.'s Statement.

The eighth of an acre upon which I raised my English turnips is a wet, stiff soil, with a clay sub-soil. In 1855 the crop was corn, with two loads of compost, (one-third meadow muck and two-thirds cow manure,) and twelve pounds of guano. In 1856 the crop was English turnips, with the same manure, substituting super-phosphate of lime for the guano. In 1857, it was manured the same as in '56, and the compost plowed in about the middle of June, 10 inches deep. On the 27th July I plowed in the super-phosphate, and used a cultivator to level the ground. One-eighth of a

pound of English turnip seed was sown broadcast July 27th, and the crop was pulled November 2d.

Cost of preparing the land and planting,	$0,62
" manure,	2,37
" harvesting,	2,50
Product, 3390 lbs. of bulbs.	
" 1660 lbs. of tops.	

In lot No. 2, treated as No. 1, the product was 3450 lbs. of bulbs, and 2440 lbs. of tops.

John Brooks, Jr.'s Statement.

The eighth of an acre upon which I raised my Ruta-bagas is a stiff soil, with a clay sub-soil. In 1855 the crop was carrots, with two loads of compost, (one-third meadow muck, and two-thirds cow manure). In 1856, the crop was English turnips, with the same manure, adding twelve pounds of guano. In 1857, I used the same amount and kind of manures as in '56. Plowed June 6th, ten inches deep, and brushed it over. June 8th, I sowed one-eighth of a pound of Ruta-baga seed with a machine, in rows about fifteen inches apart. The land was hoed twice, and the crop pulled November 2d.

Cost of preparation and planting,	$0,37
" manure,	2,37
" cultivation and harvesting,	2,50
Product, 5490 lbs. of bulbs.	
" 2740 lbs. of tops.	

In lot No. 2, treated the same as No. 1, except that twelve pounds of super-phosphate of lime was substituted for the twelve pounds of guano, both in '56 and '57, the product was 4870 lbs. of bulbs, and 1580 lbs. of tops.

Lawrin Pratt's Statement.

The eighth of an acre upon which I raised my onions, is a light soil and sub-soil. The crop in 1855 was onions, manured with four loads of compost, (two parts meadow mud and one-third horse, cow and hog manure). In 1856, the crop and manure were the same as in '55. In 1857, the same amount of manure was applied, and the land was plowed twice, three inches deep, and harrowed and brushed. On the 8th of May I planted three-fourths of a pound of silver skin onion seed. Cultivated by hoeing between the rows and weeding, five times. The onions were harvested by raking into rows with an iron rake, from the 1st to the 15th of October.

Cost of preparing the land and planting,	$1,37
" manure,	4,00
" cultivation and harvesting,	5,87
Product, 2580 lbs. of onions,	

NAMES OF MEMBERS OMITTED IN THE LIST OF LAST YEAR.

Putnam, Daniel, Lunenburg,
Works, Benton T., Fitchburg,

NEW MEMBERS.

ASHBURNHAM.

Houston, Horace W.

FITCHBURG.

Sawtelle, John M.
Benjamin, Levi
Damon, Albert B.
Crehore, Warren A.
Sawyer, Charles B.

LUNENBURG.

Day, N. C.
Dunsmore, J. T.
Putnam, James.

PRINCETON.

Mirick, Sewall G.

STERLING.

Richardson, William B.
Loring, Maynard
Heywood, Moses B.
Wilder, Josiah

TEMPLETON.

Stone, E. W.

WESTMINSTER.

Lerned, John K.
Miles, Daniel C.

WINCHENDON.

Baldwin, William

ANALYSIS OF PREMIUMS AND GRATUITIES AWARDED.

FARMS, &c.

Amount awarded for		Plowing,	$59,00	
"	"	Orchards,	22,00	
Total,				$81,00

FARM STOCK.

Amount awarded for		Bulls,	$18,00	
"	"	Milch Cows,	43,00	
"	"	Heifers,	15,00	
"	"	Calves,	32,00	
"	"	Working Oxen,	27,00	
"	"	Steers,	27,50	
"	"	Fat Cattle,	37,00	
"	"	Horses,	57,00	
"	"	Sheep,	5,50	
"	"	Swine,	33,50	
"	"	Poultry,	9,00	
"	"	Town Teams,	30,00	
Total,				$334,50

FARM PRODUCTS.

Amount awarded for		Indian Corn,	$15,00	
"	"	Wheat,	5,00	
"	"	Barley,	3,00	
"	"	Beans,	2,00	
"	"	Potatoes,	3,00	
"	"	English Turnips,	3,00	
"	"	Ruta-baga,	3,00	
"	"	Onions,	3,00	
"	"	Fruits and Flowers,	44,75	
"	"	Vegetables,	27,75	
"	"	Kitchen Garden,	3,00	
"	"	Bread, Butter, Cheese, Pickles and Honey,	16,25	
Total,				$128,75

MISCELLANEOUS.

Amount awarded for Agricultural Implements,	$2,62	
" " Mechanical & Manufac'd Articles,	27,73	
" " Fancy Articles,	25,00	
Total amount awarded,		$599,60

Premiums were paid to one hundred and ninety-six different persons, and the amounts distributed as follows:

Fitchburg,	$267,48
Princeton,	163,25
Sterling,	39,75
Westminster,	30,00
Lunenburg,	26,00
Leominster,	22,25
Ashby,	11,50
Townsend,	3,00
Ashburnham,	1,50
Hubbardston,	1,00
Royalston,	1,00
Total,	**$566,73**

FINANCES.

RECEIPTS.

Amount received from the Commonwealth,	$600,00	
" " " Income of the Fund,	193,40	
" " " New Members,	100,00	
" " " Admission Fees, &c.,	312,07	
Total,		$1205,47

DISBURSEMENTS.

Amount of Premiums and Gratuities paid out,	$566,73	
" Current Expenses, &c., for the year,	251,70	
Total,		$818,43
Amount of the permanent fund in 1856,		$3200,00
Amount of the permanent fund in 1857,		3550,00

OFFICERS OF THE SOCIETY FOR 1858.

President,
JABEZ FISHER, of Fitchburg.

Vice-Presidents,
MOSES M. GAGE, of Fitchburg,
EZRA KENDALL, of Sterling.

Secretary,
WM. G. WYMAN, of Fitchburg.

Treasurer,
T. C. CALDWELL, of Fitchburg.

Trustees,

OHIO WHITNEY, Jr., of Ashburnham.
JOEL HEYWARD, of Ashby.
LEVI HEYWOOD, of Gardner.
LEONARD BURRAGE, of Leominster.
SOLON CARTER, of Leominster.
THOMAS BILLINGS, of Lunenburg.
DANIEL PUTNAM, of Lunenburg.
JOHN BROOKS, Jr., of Princeton.
J. T. EVERETT, of Princeton.
GEORGE CHANDLER, of Shirley.
SAMUEL OSGOOD, of Sterling.
BENJ. WYMAN, of Westminster.
DANIEL MILES, of Westminster.
ABEL F. ADAMS, of Fitchburg.
THOMAS R. BOUTELLE, of Fitchburg.
JOEL PAGE, of Fitchburg.
JAMES P. PUTNAM, of Fitchburg.
LORRISTON STOCKWELL, of Fitchburg.
JOSEPH UPTON, of Fitchburg.
MOSES WOOD, of Fitchburg.
ISAAC B. WOODWARD, of Fitchburg.
DANIEL WORKS, of Fitchburg.

Member of the Board of Agriculture.
JABEZ FISHER, of Fitchburg.

LIST OF PREMIUMS

FOR THE

SIXTH ANNUAL EXHIBITION,

TO BE HELD AT

Fitchburg, on Friday, Sept. 24th, 1858.

No person will be allowed to become a competitor for any of the Premiums herein offered, unless he shall have made an entry for the same, with the Secretary, within the time prescribed for each class, nor unless he shall also have furnished all required statements relating thereto within the specified time.

For the convenience of those who live at distance, all entries may be made by mail.

STOCK.

All entries for Premiums under this head, must be made on or before the Wednesday previous to the exhibition, and all Stock must be owned by the person who enters it.

All Neat Cattle and Swine, must have been owned by the person entering the same for at least three months next previously.

Each entry of Stock for the pens must specify the breed of the animal, if known, and the age.

All Stock will be weighed free of expense.

BLOOD STOCK.

Authentic pedigrees will be required.

For the best yearling Durham Bull, - - -	$5,00
For the best yearling North Devon Bull, - -	5,00
For the best yearling Ayrshire Bull, - - -	5,00
For the best yearling Alderny Bull, - - -	3,00

GRADE OR NATIVE BULLS.

For the best Bull, more than two years old,	$6,00
" second best do.,	4,00
" third best do.,	2,00
For the best Bull, one year old, and less than two,	5,00
" second best do.,	3,00
" third best do.,	2,00
For the best Bull Calf, more than four months old,	4,00
" second best do.,	3,00
" third best do.,	2,00

MILCH KINE.

For the best herd of four Cows or Heifers,	$12,00

The person receiving this premium will not be allowed to compete for any other, with the same animals.

For the best Milch Cow, regarding age, quality, and quantity of milk, expense of keeping, &c.,	6,00
" second best do.,	5,00
" third best do.,	4,00
For the best three years old Milch Heifer,	5,00
" second best do.,	4,00
" third best do,	3,00
" fourth best do.,	2,00
For the best two years old Milch Heifer,	5,00
" second best do.,	4,00
" third best do.,	3,00
" fourth best do.,	2,00

Competitors for Premiums on Milch Cows, and Milch Heifers, will be required to certify in writing, at the time of entry, to the weight of the milk during the first seven days in June, and the first seven days in September; and to the manner of keeping, and general management. Cows that calve after the first day of June, may be tried at another time.

HEIFERS.

For the best two years old Heifer, intended to be kept for the dairy,	$4,00
" second best do.,	3,00
" third best do.,	2,00

For the best yearling Heifer, - - - - $3,00
" second best do., - - - - - 2,00
" third best do., - - - - 1,00
For the best Heifer Calf, more than four months old, - 3,00
" second best do., - - - - 2,00
" third best do., - - - - - 1,00
For the best Heifer Calf, raised by hand, - - 3,00
" second best do., - - - - - 2,00
" third best do., - - - - 1,00

WORKING OXEN.

For the best pair of Working Oxen, - - - 700
" second best do., - - - - 6,00
" third best do., - - - - - 5,00
" fourth best do., - - - - 4,00
" fifth best do., - - - - - 3,00
" sixth best do., - - - - 2,00
" best Teamster, - - - - - 2,00

STEERS.

For the best pair of three years old Steers, - - 4,00
" second best do,, - - - - 3,00
" third best do., - - - - - 2,00

The three years old Steers will be attached to carts, and tried like the Oxen, on the same ground; the cart and load to weigh two thousand pounds.

For the best pair of two years old Steers, - - $3,00
" second best do., - - - - 2,50
" third best do., - - - - - 2,00
For the best pair of yearling Steers, - - 3,00
" second best do., - - - - 2,00
" third best do., - - - - 1,00
For the best pair of Steer Calves, - - - 5,00
" second best do., - - - - 3,00
" third best do., - - - - - 2,00
" fourth best do., - - - - 1,00

TRAINED STEERS.

For the best trained pair of Steers, less than three years old, - - - - - - $3,00
" second best do., - - - - 2,00

FAT CATTLE.

The entries of Fat Cattle must specify the mode of fattening.

For the best fat Ox, having regard to expense of feeding, $8,00
" second best do,, - - - - 5,00
" third best, - - - - - 3,00
For the best Fat Cow, - - - 6,00
" second best do., - - - - - 3,00
" third best do., - - - - 2,00
For the best fat three years old Steer, - - - 6,00
" second best do., - - - 4,00

SWINE.

For the best Boar, more than one year old, - - $4,00
" second best do., - - - - 3,00
For the best Boar, less than one year old, - - 2,00
For the best fat Hog, more than eight months old, - 4,00
" second best do., - - - - - 3,00
" third best do., - - - - 2,00
For the best fat Pig, less than eight months old, - - 3,00
" second best do., - - - - 2,00
" third best do., - - - - - 1,00
For the best breeding Sow, - - - - 3,00
" second best do., - - - - 2,00
" third best do., - - - - - 1,00
For the best weaned Pigs, not less than four, - 2,00
" second best do., - - - - - 1,50
" third best do., - - - - 1,00

HORSES AND COLTS.

For the best Stallion, - - - - - $6,00
" second best do., - - - - 3,00
For the best pair of Draught Horses or Mules, - - 6,00
" second best do., - - - - 4,00

For the best Draught Horse,	$5,00
" second best do.,	3,00
For the best Breeding Mare,	5,00
" second best do.,	3,00
For the best three years old Stallion,	3,00
For the best three years old Gelding,	3,00
For the best three years old Filly,	3,00
For the best two years old Stallion,	3,00
For the best two years old Gelding,	3,00
For the best two years old Filly,	3,00
For the best yearling Colt,	3,00
" second best do.,	2,00
For the best Colt, three to six months old,	3,00
" second best do.,	2,00
" third best do.,	1,00

SHEEP.

For the best flock of Sheep, not less than six, owned by one person,	$4,00
" second best do.,	2,00
For the best Cosset Sheep,	2,00
" second best do.,	1,00
" third best do.	,50

POULTRY.

For the best dung-hill Fowls, not less than six,	$2,00
" second best do.,	1,00
" third best do.,	,50
For the best Turkeys, not less than six,	2,00
" second best do.,	1,00
" third best do.,	,50
For the best Geese, not less than six,	1,00
For the best Ducks, not less than six,	1,00

PLOWING MATCH.

All entries for Plowing must be made on or before the Saturday previous to the exhibition.

DOUBLE TEAMS.

For the best Plowing,	$10,00
" second best do.,	8,00
" third best do.,	6,00

SINGLE TEAMS.

For the best Plowing,	8,00
" second best do.,	6,00
" third best do,,	4,00
" fourth best do.,	2,00

HORSE OR MULE TEAMS.

For the best Plowing,	6,00
" second best do.,	4,00
" third best do.,	2,00

In all cases where a Premium may be awarded to teams for Drawing, if driven by a Minor—or in Plowing, if the Plow is managed by a Minor—said Minor shall be entitled to a gratuity equal to fifty per cent. of the Premium.

CROPS.

All entries for Premiums on *sowed Grains* must be made with the Secretary, on or before July 1st. All others on or before August 1st. Immediately after those dates the Secretary will transmit to all competitors a copy of the blank form adopted by the Trustees.

These forms must be returned to the Secretary on or before Nov. 10th, with each question concerning the crop answered, and the certificates properly signed.

The Committee may award gratuities for valuable new varieties of grain.

For the most profitable acre of Corn, (of any variety) the product to be not less than 22 pounds of shelled Corn to the square rod when weighed by the Committee,	$6,00
" second best do.,	4,00
" third best do.,	3,00
" fourth,	2,00

For the variety of Corn best adapted to our soil and climate,	$3,00
For the most profitable acre of Wheat, not less than 1200 pounds of grain,	4,00
" second best do.,	3,00
" third best do.,	2,00
For the most profitable acre of Rye, not less than 1200 pounds of grain,	3,00
" second best do.,	2,00
For the most profitable acre of Barley, not less than 1200 pounds of grain,	3,00
" second best do.,	2,00
For the most profitable acre of Oats, not less that 1200 pounds of grain,	3,00
" second best do.,	2,00
For the best half bushel of Herds-grass Seed,	2,00
" second best do.,	1,00
For the best half bushel of Red-Top seed,	2,00
" second best do.,	1,00

The Grass seeds to be exhibited at the show.

For the most profitable eighth of an acre of Cabbages,	$2,00
" second best do.,	1,00
For the most profitable eighth of an acre of White Beans,	2,00
" second best do.,	1,00
For the most profitable half acre of Potatoes, not less than 6000 pounds,	4,00
" second best do.,	3,00
For the most profitable eighth of an acre of Carrots, not less than 5500 pounds,	4,00
" second best do.,	3,00
For the most profitable eighth of an acre of Onions, not less than 2000 pounds,	3,00
" second best do.,	2,00
For the most profitable eighth of an acre of Sugar Beet, without limit as to quantity,	2,00
" second best do.,	1,00
For the most profitable eighth of an acre of Mangold Wurtzel,	2,00
" second best do.,	1,00

For the most profitable eighth of an acre of English Turnips, - - . - $3,00
" second best do., - - - - - 2,00
For the most profitable eighth of an acre of any other variety of Turnips, - - - - 3,00
" second best do., - - . - - 2,00

FARMS.

All competitors must make their entries on or before the first day of May. Each farm will be open to the inspection of the Committee on Farms during the entire season. A detailed statement of the general management, together with the income and expenses for the year, must be furnished on or before November 10th.

For the best cultivated and managed Farm, - - $15,00
" second best do., - - - - 8,00

GARDENS.

Entries must be made on or before June 1st.

For the best kitchen Garden, - - - - $5,00
" second best do., - - - - 3,00

EXPERIMENTS.

MANURES AND CULTIVATION.

All entries must be made on or before July 1st, and a statement furnished on or before November 10th.

For the best Experiment in testing the value of different kinds of Manure, on not less than one acre of ground, as compared with each other, and with no manure; the crop to be a cultivated one, $5,00
" seeond do., - - - - - 3,00

For the best Experiment in raising Potatoes, upon not less than one acre of land, the whole to be manured alike, - - - - - 4,00
" second best do., - - - - 2,00
For the best Experiment in raising mixed crops, upon not less than half an acre, - - - 3,00
" second best do. - . - - 2,00
For the best Experiment in raising Chinese Sugar Cane, 3,00
" second best do., - - - - 2,00
For the best Experiment in raising Millet, - - 3,00
" second best do., - - - : 2,00
For the best Experiment in raising Cranberries, upon not less than one fourth of an acre, - - 5,00
For the best Experiment showing the effects of the artificial Draining of uplands, - - 5,00
" second best do., - - - - - 3,00
For the best Experiment in sub-soil Plowing, - - 2,00
For the best Experiment in raising Sweet Potatoes, - 1,00

FEEDING STOCK.

All entries must be made one week previous to commencing the experiment, and statements furnished on or before November 10th.

For the best Experiment in feeding Neat Stock, - - $4,00
" second best do., - - - - 2,00
For the best Experiment in feeding Swine, - - 3,00
" second best do,, - - - - 2,00

KEEPING POULTRY.

Entries to be made on or before August 1st, and statements furnished on or before November 10th.

For the best Experiment in keeping Poultry, - - $2,00
" second best do., - - - - 1,00

FRUITS AND FLOWERS.

No article intended for the hall will be entitled to a Premium, unless it shall have been deposited by 2 o'clock, P. M., on the day previous to the exhibition, from which time the hall will be occupied by the Committees exclusively, for the remainder of the day and evening. All articles must have been grown, manufactured or produced by the person entering the same for Premium.

APPLES.

For the best and largest exhibition of named varieties, of three specimens each,	$4,00
" second best do.,	2,00
For the best twelve varieties, of five specimens each,	3,00
" second best do.,	2,00
" third best do.,	1,00
For the best six varieties, of five specimens each,	2,00
" second best do.,	1,50
" third best do.,	1,00
For the best three varieties, of ten specimens each,	1,50
" second best do.,	1,00
" third best do.,	,50
For the best Dish or Basket of any variety,	1,50
" second best do.,	1,00

No person will be allowed to compete for a Premium in more than one of the above classes, with the same specimens of Fruit.

PEARS.

For the best and largest exhibition of named varieties, of three specimens each,	$4,00
" second best do.,	2,00
For the best twelve varieties, of five specimens each,	3,00
" second best do.,	2,00
" third best do.,	1,00
For the best six varieties of five specimens each,	2,00
" second best do.,	1,50
" third best do.,	1,00
For the best three varieties, of ten specimens each,	1,50
" second best do.,	1,00
" third best do.,	,50

For the best Dish or Basket of any variety, . . 1,50
" second best do., ... 1,00

No person will be allowed to compete for a Premium in more than one of the above classes, with the same specimens of Fruit.

PEACHES.

For the best collection, ... $3,00
For the best Dish or Basket, ... 2,00
" second best do., ... 1,00
" third best do., ... ,50

PLUMS.

For the best collection, ... $2,00
For the best plate, ... 1,00
" second best do., ... ,50

QUINCES.

For the best Dish or Basket, ... $1,00
" second best do., ... ,50

GRAPES.

For the best display of Foreign Grapes, . . . $3,00
" second best do., ... 2,00
" third best do., ... 1,00
For the best display of Native Grapes, . . 3,00
" second best do., ... 2,00
" third best do., ... 1,00

ASSORTED FRUIT.

For the best Dish or Basket, ... $2,00
" second best do., . . . , 1,00

FLOWERS.

For the best display of Plants in Pots, . . . $2,00
" second best do., ... 1,00
For the best display of cut Flowers, . . . 1,00
" second best do., ... ,50

In addition to the above Premiums, there will be placed at the disposal of the Committee for gratuities, $15,00

VEGETABLES.

For the best collection of Kitchen Vegetables,	$3,00
" second best do.,	2,00
" third best do,,	1,00
For the best collection of Potatoes, one peck of each variety,	2,00
" second best do.,	1,00
" third best do.,	,50
For the best six Marrow Squashes,	1,00
" second best do.,	,50
For the best six Crookneck Squashes,	1,00
" second best do.,	,50
For the best six Pumpkins,	,75
" second best do.,	,50
For the best six heads of Cabbage,	,75
" second best do.,	,50
For the best three specimens of Cauliflower,	,75
" second best do.,	,50
For the best six stalks of Celery,	,75
" second do.,	,50
For the best peck of Onions,	,75
" second best do.,	,50
For the best peck of Turnip Beets,	,75
" second best do.,	,50
For the best peck of English Turnips,	,50
" second best do.,	,25
For the best peck of Tomatoes,	,50
" second best do.,	,25
For the best half peck of field Beans,	,50
" second best do.,	,25
For the best two quarts of Lima Beans,	,50
" second best do.,	,25
For the best collection of Seed Corn, in traces,	1,00
" second best do.,	,75
" third best do.,	,50
In addition to the above, there will be allowed for gratuities,	10,00

BREAD.

Premiums for Bread will be awarded to ladies less than twenty years of age only, and all Bread must have been baked on the Wednesday previous to the exhibition.

For the best loaf of Wheat Bread,	$1,00
" second best do.,	,50
For the best loaf of unbolted Wheat Bread,	1,00
For the best loaf of bolted Rye Bread,	1,00
" second best do.,	,50
For the best loaf of Rye and Indian Bread,	1,00
" second best do.,	,50

BUTTER CHEESE AND PICKLES.

Competitors will be required to furnish a detailed statement in writing of the process of manufacturing these articles.

For the best specimen of Lump Butter, not less than 12 pounds,	$4,00
" second best do.,	3,00
" third best do.,	2,00
" fourth best do.,	1,50
" fifth best do.,	1,00
For the best specimen of Tub Butter, not less than 25 pounds,	3,00
" second best do.,	2,00
For the best specimen of Cheese, not less than 50 pounds,	2,00
" second best do.,	1,50
" third best do.,	1,00
For the best jar of Pickles,	,75
" second best do.,	,50
" third best do.,	,25

HONEY.

For the best specimen of virgin Honey, in the comb,	$1,00
" second best do.,	,50

MECHANICS AND MANUFACTURES.

For the best Buggy Wagon,	$4,00
For the best Winnowing Mill,	2,00
For the best Straw Cutter,	2,00
For the best Ox Yoke,	1,00
For the best Grain Cradle,	1,00
For the best six Scythes,	1,00
For the best six Hay Rakes,	,50
For the best six Baskets,	1,00
For the best six Shovels,	1,00
Fer the best six Hoes,	,50
For the best three Hay Forks,	,50
For the best three Manure Forks,	,50
For the best Churn,	2,00
For the best Harness,	1,00
For the best three pairs Thick Boots,	1,00
For the best three pairs Thin Boots,	1,00
For the best three pairs Ladies' Shoes,	1,00
For the best specimen of Tailor's work,	2,00
For the best five pieces of Tin Ware,	1.00
For the best five pieces Blacksmith's work,	2,00
For the best specimens of Edge Tools,	1,00
For the best specimen of Carriage or Sign Painting,	1,00
For the best specimen of Painting in imitation of wood or Marble,	1,00
For the best specimens of Cabinet work,	2,00
For the best specimens of Wooden Ware,	2,00
For the best specimens of Chairs,	2,00
For the best specimens of Wrapping Paper,	,50
For the best specimens of Writing Paper,	,50
For the best thirty yards Sheeting,	,75
For the best thirty yards Shirting,	,75
For the best twelve yards Broadcloth,	2,00
For the best twenty yards Cassimere,	2,00
For the best twenty yards Satinet,	1,00
For the best six dressed Calfskins,	1,00
For the best six Palmleaf Hats,	,75
For the best plain Bed-quilt,	1,00
For the best Hearth Rug,	1,00

For the best twenty yards home-made Flannel, , 1,00
For the best three pairs Woolen Socks, . . ,75
In addition to the above, there will be allowed for gratuities, the sum of . . . 15,00

FANCY ARTICLES.

For the best specimens of Ladies' Useful and Fancy Articles, of their own manufacture, including specimens of nice mending and darning, there will be placed at the disposal of the Committee, the sum of . $25,00

ORCHARDS.

Competitors must make their entries on or before the 1st day of June, and furnish a detailed statement of the history and management, on or before November 10th.

APPLES.

For the best Orchard, of not less than 25 trees, all having been set out previous to Jan. 1st, 1856, . $10,00
" second best do., . . . 5,00

ESSAYS.

All persons competing for these Premiums must file their Essays with the Secretary or on before the 1st of September. Each Essay is to be marked with a motto or design, and accompanied with a sealed envelope containing a corresponding motto or design, and also the name of the author.

The envelopes of the successful competitors will be opened at the dinner table on the day of the exhibition, immediately upon the announcement of the awards.

For the best Essay on some practical subject connected with Agriculture. deemed worthy of publication in the Society's "Transactions," . $8,00
" second best, . . . 4,00

PROSPECTIVE PREMIUMS.

ORCHARDS.

All persons competing for these Premiums, must make their entries on or before the 1st day of June, in the year in which the Premiums are to be awarded, and furnish a detailed statement of the whole management from the time of setting out, on or before November 10th of the same year.

APPLES.

For the best Orchard of not less than fifty trees, all having been set out after January 1st, 1856, to be awarded in 1860, . . .	$25,00
" second best do., . . .	10,00

PEARS.

For the best Orchard of not less than fifty trees, all having been set out after January 1st, 1856, to be awarded in 1861, . . .	$25,00
" second best do., . . .	10,00

PEACHES.

For the best Orchard of not less than fifty trees, all to be set out previous to January 1st, 1858, to be awarded in 1859, . . .	$10,00
" second best do., . . .	5,00

RECLAIMED ORCHARDS.

For the best experiment in reclaiming on old Orchard, either Apple or Pear, to be awarded in 1859,	$10,00
" second best do, . . .	5,00

FOREST TREES.

For the best plantation of any kind of Forest trees, suitable for fuel or timber, raised from the seed, not less than 500 in number, which shall be in the most flourishing condition in the fall of 1863, . . .	$25,00

For the second best do., . . . 15,00
" third best do., ... 10,00

Entries are to be made on or before August 1st. 1863, and a detailed statement of the entire management furnished on or before November 10th of the same year.

RULES.

No article for which a premium has once been awarded by this Society, shall ever compete for another of the same class, except a higher one.

The several Committees will not consider themselves bound by the terms of the above offers, to award a Premium for anything which they shall deem inferior.

Any person to whom a Premium shall have been awarded in consequence of any deception or misrepresentation used by him, shall not only forfeit such Premium, but afterward be incapable of competing for the Society's Premiums.

All persons (ladies excepted), not members of the Society, to whom may be awarded a Premium or Premiums amounting to $5,00 or upwards, shall receive a certificate of membership for $5,00, and the balance in cash. If the amount shall be less than $5,00, a deduction of fifty per cent. will be made, unless the individual chooses to make the amount up to that sum, and receive a certificate of membership.

All Premiums not demanded on or before November 30th, will revert to the Society.

TRANSACTIONS

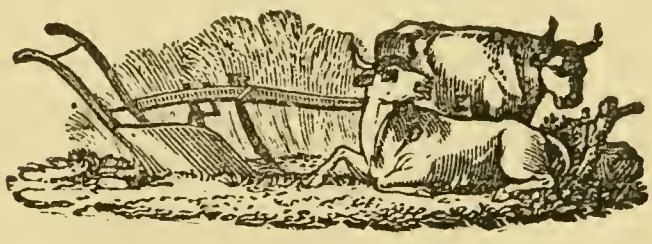
—OF THE—

WORCESTER NORTH

Agricultural Society,

FOR 1858.

PREPARED BY THE SECRETARY.



FITCHBURG:
PRINTED BY E. & J. F. D. GARFIELD,
1858.

INTRODUCTORY.

The Worcester North Agricultural Society held its sixth annual Exhibition at Fitchburg, on Friday, September 24th, 1858. The weather was unfavorable, being cloudy, threatening and stormy; notwithstanding which there was a good attendance of spectators, and a good degree of interest manifested by exhibitors and others in all the plans for rendering the show a successful one. The attendance and interest manifested, afford evidence that Cattle-show days here are the most popular holidays we have.

The cattle pens were erected on the Tuttle Flat, on the north of River street, and were tolerably well filled, there being nearly four hundred animals on exhibition. Although this number was considerably less than that of last year, the animals, in quality, were not inferior to those exhibited at any previous show.

The plowing also took place upon the same ground, commencing at nine o'clock, and was a marked feature of the day, attracting a large share of attention. The match in each of the three departments was spirited, well contested, and of such a character as to exhibit to the best advantage the skill of the plowman, as well as the docility and training of the teams. The trials of

Working Oxen, Steers, and Draught Horses commenced at ten o'clock. The fact that there were no premiums offered for Town Teams as heretofore, tended to lessen the number of working oxen on exhibition. There were a good number of competitors however for the premiums in this department, and the drawing and backing was easily and quietly performed, exhibiting not only the wonderful strength of the animals themselves, but also the controlling power of the human mind over that force which they possess.

The exhibition of Fruit, Flowers and Vegetables was all that could have been expected, and indicated constantly increasing care and attention on the part of the farmers in the vicinity in the cultivation of these articles. The display of pears surpassed all former exhibitions in that department, while that of apples and peaches contained many choice varieties and excellent specimens; that of grapes also indicated a commendable attention to the cultivation of this excellent fruit.

The show of Mechanical and Manufactured Articles, although not equal to the expectations of those interested, was nevertheless, in some respects, superior to that of other years; thus encouraging the hope that this department of our show will soon receive that attention which our locality claims for it. The Fancy productions of the vicinity were *fairly* and richly represented. Of Bread, Butter, Cheese, &c., there was also a good display.

The address usual on such occasions was omitted.—At half-past twelve the lower Town Hall was opened to the members and friends of the Society, who partook of a substantial and satisfactory repast, prepared W. F.

DAY, of the Fitchburg Hotel. The President then directed attention to the mental feast, by introducing the Hon. SIMON BROWN, Editor of the New England Farmer, who was followed by CHARLES L. FLINT, Esq., Secretary of our State Board of Agriculture, both of whom gave utterance to valuable practical thoughts, in their usual earnest and eloquent style. Brief and pertinent remarks were also made by the Rev. KENDALL BROOKS, Hon. G. F. BAILEY, ALVAH CROCKER, Esq., and Rev. W. P. TILDEN, which were interspersed with the reading, by the President, of the premiums awarded, and with songs, by a quartette club, consisting of Messrs. R. R. SAFFORD, G. W. KIMBALL, N. O. PRESCOTT and H. E. DANFORTH, whose rendering of the "Harvest Hymn," the "Old Farmer's Elegy," "The Old Mountain Wave," and "Uncle Sam's Farm," was received with much apparent satisfaction.

Thus the day passed happily and profitably, notwithstanding the unpropitious state of the atmosphere; and now an important question suggested by this year's experience is, how can these exhibitions be sustained so as to be productive of the most progress in agriculture; so as to increase the number and improve the spirit of competitors and exhibitors, as well as admiring spectators; so as to fill our exhibition grounds with animals of the different classes surpassing in number, and in the various points of excellence those of any previous show; so as to induce our farmers to compete oftener, and more systematically for the premiums offered in the various departments of the list of *Experiments*, as well as those offered for Farms, Gardens, Plowing, &c.; in short, so as to render the exhibition of each succeeding

year superior to and more attractive and instructive than that of any preceeding year? This question it is hoped will be submitted to the officers of the Society, and will receive their early and earnest consideration.

The list of premiums offered by the Society has, from year to year, been varied and enlarged, until it is thought to compare favorably with those of other County Societies, and to afford ample inducements to our farmers, to enter the lists of those who compete for them, and to strive for excellence in whatever they attempt. Various efforts have also been made, and perhaps will bear repetition, to convince our farmers that if they should fail to obtain *the* prize for which they strive, they will not pass unrewarded, for the very effort required will induce improvements which will either afford immediate profits, or add to the permanent value of their farms, and certainly will add to the material interests of farming; and he who shall add most to these interests will obtain the highest prize.

There have been six meetings of the Trustees held during the year, for business, which have been punctually and fully attended by the members, who have exhibited an earnest desire that the interests entrusted to their supervision should be properly cared for.

At the last annual meeting a Committee was chosen "to take into consideration the subject of the purchase of a tract of land for the use of the Society." In due time that Committee reported, recommending the "purchase of a piece of land suitable for their exhibitions, and to have it fitted for use before the next annual Show." Several meetings of the Trustees, and of the Society were held for the purpose of considering the subject,

which was fully discussed, but a vote to adopt the recommendations of the Committee was not obtained.

One hundred and thirty-five copies of the Agriculture of Massachusetts for 1857 have been received from C. L. Flint, Esq., Secretary of the Massachusetts State Board of Agriculture, during the year, and have been distributed by the Secretary among the members of the Society and others interested in the cause of Agriculture. He has also received and distributed, according to his best judgment, more than one hundred volumes of other works, including copies of the Agriculture of Massachusetts for 1855 and 1856, and Patent Office Reports on Agriculture, &c., all of which have been eagerly sought, and in many cases carefully perused. Nearly seven hundred small packages of seeds, &c., have also been received from various sources, mainly from the United States Patent Office, and have been distributed freely, to all who have called for them, and have been sent to many who did not call for them. This includes one large package of Skirving's Improved Ruta-Baga Seeds from the Massachusetts Society for the Promotion of Agriculture, which, alone, was distributed among about fifty members of the Society.

Thirty-eight new members have joined the Society during the year, making the total number who have joined up to the present time, five hundred and twenty-four.

REPORTS OF COMMITTEES.

PLOWING—SINGLE TEAMS.

The Plow, rejoicing in an antiquity of more than three thousand years, is one of the oldest and best implements of the husbandman. Like all the common productions of this exceedingly wise and fast generation, it has, by many, recently been supposed to have attained to its highest degree of perfection and excellence. Similar opinions may have obtained from the days of Moses, throughout all succeeding time to the present period, but such opinions are always dangerous, and heretical, and operate as a bar and a clog upon all progress.

That great improvement has been made, whereby the friction has been reduced and the furrow turned over more perfectly, with a less required amount of muscular force to do the same work in a better manner we are not prepared to deny, but when we boast of a Plow so greatly superior to the crude instruments used by Egyptian, Greek or Roman, or even of the Dutch or English, it is probable, nay more than probable that when we have slept with our fathers, and ere another generation shall have passed away, our boasted Michigan's and other

patterns will sleep with us, to be no more thought of then, than the root, or hog plow of the ancients is now. Let no farmer therefore be contented with any model now in use, but always strive to add still greater perfection and beauty to this primary indispensable instrument of Agriculture.

Before announcing the premiums, it is due to the Society to lay down one cardinal principle which has governed your Committee in awarding them, namely—the dispensing altogether with the whipping process; upon this point your Committee are a unit, and we crave your indulgence while we dwell a little more at length upon this head.

The objects of the Plowing Match are not, like those of the Grecian Olympic games, the mere naked test of agility or strength. Much as those games of the ancients might develope the physical man, they had no moral bearing, or it was so remote as to be lost in the coarser instincts of brute speed or force. A Grecian whose cranial work shop would hardly admit of brains enough to describe the difference between a plow and a harrow, a yoke about the neck of the ox, or strap around his head might wear the laurel crown and rejoice in the palm of victory; whereas the intelligent plowman who now wears that palm must be master of his own actions, guiding his plow with the greatest skill and care, and under the exercise of that dominion over the beasts of the field, which God Almighty has given him through the medium of the mind implanted within him, must display it, under its most perfect discipline and effect; an effect obtained in the highest degree too, by carrying out in its fullest purity the great principle which the Supreme

Law-giver has so strikingly, so forcibly developed to us, to-wit, the law of kindness and love. Let this rule of action be the first elemental law of those who witness the mercy and goodness of the Deity in all the glory of nature, whether adorned in the rich verdure of the opening spring, or the golden sheaves of autumnal harvest.

Brute, as a brute is, he is one step in that magnificent nascent order of things between the polypus and man—the greatest production from the Greatest of Producers. In His occult mysterious structure of every living, creeping thing, our exalted Creator has been pleased to work by that same universal law, and it is for man, his noblest creation, to study and adapt a principle so clearly defined and sustained by that Creator to him, to what he has created for him. We have heretofore acted towards dumb animals too much upon the old puritanical doctrine of "total depravity," upon "the spare the rod spoil the child" dogma, which, leaving the question of its truth or justice upon bipeds, is totally inappropriate and ill-chosen, in the opinion of your Committee, upon quadrupeds. The infliction of blows upon the poor brute begets a correspondent desire to reciprocate by the free use of his extremities, or grass-croppers, the application of which, to sensitive humanity, is not at all pleasant or agreeable; moreover, if he learns while we are venting our spite upon him what we really want him to do, he knows enough to thwart our desire, often preferring to let us exhaust ourselves in pounding his ribs while he still stands (in military parlance) "as you are." How often, for instance, have we seen that useful animal the horse, after having been beaten, kicked and thrashed for whole hours without mercy to obtain his

locomotion with a load, and to no purpose, start off almost instantly by a few gentle pats of the hand, or endearing tones of the voice. What a beast should know is, that man is emphatically his master, by the thousand different teachings which are always in a man's power, that man is his peer in *every thing*, and not in the single attribute of cruelty.

We stand then upon this position, that the plowman, who governs his team without whipping or lashing, not only governs that team best, but produces more work from them and in greater perfection. The time and strength lost in applying the whip, its shrinking, exhausting effect upon his toiling cattle is worse than useless, it is damning in its influence upon them and upon him; while gentle treatment schools the animals, to desire to follow more implicitly the wishes of their master, and they soon learn to know, and govern themselves, by the tones of his voice. Your Committee therefore in conclusion submit, that the more the plowman developes God's law of kindness, the surer he is of success, the more he will ultimately perform, and in far greater perfection.

In announcing the Premiums, the Committee express their unfeigned regret that no more than two single teams were entered that came within the rule, to-wit, those of Messrs. Levi Downe and Samuel Farwell.

Both of these gentlemen performed their work admirably, considering the character of the land plowed. There was no perceptible difference in the character of the lots, both of which had a hard rocky substratum, rendering it almost impossible to keep the plow steady.

Mr. Downe plowed No. 9 with a double Michigan

Plow, and Mr. Farwell No. 8 with a Ruggles, Nourse & Mason, No. 55.

Upon balloting the Committee found themselves divided, so difficult was it to determine between the two, both of which deserved by the character of their work a first premium, but as those who decided in favor of No. 9 were not only professional farmers, but men whom the other members of the Committee were proud to defer to, in point of judgment, we have awarded to Levi Downe, Esq., the first premium, $8,00, and to Samuel Farwell the second premium, $6,00.

All of which is respectfully submitted by

A. CROCKER, *Chairman.*

PLOWING—DOUBLE TEAMS.

History tells us that in the palmy days of Greece and Rome, the goddess of agriculture was worshiped with great pomp and splendor, after she had recalled the attention of men to her favorite pursuit, and taught them "how to plow the ground, to sow and reap the corn, to make bread, and take *particular* care of the fruit trees." For a similar purpose have we come together to-day, if not to pay our vows to "Cere," the blind and insensible goddess of ancient Greece and Rome, yet nevertheless to express our gratitude to our Heavenly Father, as we bring our offerings to a common altar, and here with thankful hearts and happy, joyous

spirits, offer them anew, as memorials of His unfailing pledge to man, that "seed time and harvest, and summer and winter shall not fail."

As the orator and the statesman, the merchant, mechanic, professional man and farmer, all mingled together on return of this great festal day of the nation, so now *we* are happy to greet and welcome men of every grade and calling in life, to participate in this grand jubilee, that recognizes nature's bounty and God's providential love and care for man. As our eyes have run over the various specimens of grain, vegetables, and luscious fruit to-day, we have been led to wonder at the power and forces of nature that have furnished such beautiful specimens of her handi-work and skill. We have hardly stopped to think but what this power was inherent, and wholly independent of human agency; but such is not the fact. A long process of careful culture and training has been requisite to bring about these desirable results. Among these has been the frequent use of the plow—in fact no article on exhibition to-day can stand independant either of a near or remote relationship to this pioneer of civilization, without being robbed of its brightest jewels. To the *plow* then, should our *first* and most *respectful* obesience be paid as the "Alpha and Omega" of all that we have, or hope for, in the full development of the resources of a wise, profitable and successful agriculture.

Men of lofty genius and world-wide renown have turned aside from their ordinary pursuits to give it the mede of their grateful praise,—while Poets of every age and clime have tuned their lyres to a loftier note, as they have attempted to "speak its worth" and power.

Sacred history carries us back to the antideluvian world, when this important fertilizer was probably used in its rudest forms, and its usefulness but imperfectly understood. But as we come down to a later period in the world's history, we must believe that a more *ponderous*, as well as perfect model was used, since the sacred historian informs us that "Elijah found Elisha plowing with *twelve yoke* of oxen." We may trace its use and history further in the settlement of "Canaan" by the children of Israel; from thence, through Egypt to Greece and Rome, where Cincenatus returned in honor from the battle field to follow the plow, and Cato, among the proudest of her sons, and bred a farmer, left his legal pursuits daily to toil with his servants in the field. From Rome we follow the plow to Brittain, and thence to our own happy and glorious New England, where its best specimens have been invented and manufactured, and where amid our sterile hill-sides, and rock-bound coasts some of its noblest triumphs are being won. Following its deep-cut furrow, civilization, intelligence, commerce, social order, Christianity, and the inherent rights of man, have all flowed on in its broad track, scattering peace and plenty on every side, until New England with its garnered treasures of knowledge, resources, and power, exerts to-day an important influence upon the interests and destiny of the whole civilized world. Such, in brief, are some of the influences and results that have followed the proper use of the plow; and yet, judging of the future by the past, its mission for good is scarcely half accomplished. Millions upon millions of acres, even upon our own land, are ready and waiting for its approach, as though the earth groaned

under its burthen of accumulated resources, and was anxious to "bring forth food for man and beast."

Our agricultural resources already astonish the world, but what will be our relative position in the vast sisterhood of nations, when instead of feeding thirty millions at home, that number is increased to a *hundred and fifty* millions, and the relative surplus from our well cultivated fields shall increase in the same proportion. We are told that so important is agriculture considered to the welfare and prosperity of China, that even to this day the Sovereign of that vast Empire, and the despotic ruler of one-third of the population of the globe, in order to show his high regard for its worth, once a year lays aside his regal pomp and comes down from his gorgeous throne, and holds the plow and turns a furrow in the presence of his Court, and of all of the highest dignitaries of the land. If his Imperial Majesty thus honors and exalts agriculture to its proper supremacy among the avocations of life, guided only by the influences of a partial civilization, what ought we to expect and require of *our* rulers and great ones? Surely nothing less than that it be recognized as the *right arm* of the nation's hope and prosperity, and that every means and facility be employed to encourage our fellow citizens to engage in so safe and important a branch of industry; for

> "The plow and the sickle shall shine bright in glory,
> When the sword and the scepter shall crumble to dust;
> And the farmer shall live, both in song and in story,
> When warriors and kings are forgotten in dust."

The chief design of a Plowing Match is, to encourage, and expose to view, the best acquired skill in holding the plow and managing the team; for it requires

no small amount of practical experience and tact, to become a good plowman, hence the art, is worthy of the ambition and persevering effort of every tiller of the soil.

A few things may be specified as necessary to constitute a *good* plowman. The first requisite is a good and properly constructed plow. If the land be smooth and level, probably there is no plow that performs better service than the Michigan Sub-soil. If, however the surface is uneven, a well constructed side-hill plow, is undoubtedly preferable to any other. The farmer should have, if able, plows of different kinds, so that he may adapt the implement, to the condition of the land that he proposes to cultivate.

Next in importance is a stout, and thoroughly trained team. Many farmers pay but little attention to the securing and preserving of a suitable team for the general purposes of agriculture. Doubtless, throughout most of New England, oxen are preferable for most of the purposes of farming to horses or mules. Especially is this true in reference to plowing, their gait is less rapid, and the plow is drawn with more evenness and force, and hence the furrow may be turned with greater ease and uniformity. It is highly important that the cattle should be well matched in size, weight, motion, and temperament; with these requisites, and proper training, united with kind treatment, your cattle may be educated to perform their tasks with ease, skill, and profit. It is also necessary, that the driver should control *himself* if he would succeed in controlling his oxen. I have always noticed that all well-bred oxen show a proper resentment to the use of loud, boistrous and

profane language when addressed to them; and are quite as likely to go wrong as right, under such circumstances; hence let passion be restrained, and kind words used, and the effect will be salutary on both man and beast.

Many farmers in selecting their plows, aim to get those that turn the widest furrow, in order to complete their work with greater despatch. Some of these plows turn a furrow from 14 to 18 inches in width. Now experience and observation in England and Scotland, have proved that a furrow more than 12 inches in width is not so favorable for perfect and thorough pulverization as those within that width; hence the furrow slice should be no wider, than what is necessary for the complete turning of the sod.

Much has been well, and properly said of late years, in regard to plowing deep. There can be but little doubt in the mind of any candid and reflecting man, that the neglect of deep plowing has been the great mistake of all past generations of farmers, in this country. When we remember that many of our grain and vegetable roots penetrate to the depth of from one to three feet, what folly is it to skim over the surface to the depth of five or six inches, as was formerly the universal practice. It is well that our farmers are beginning to awake to this important matter, and as the result, we may expect surer, and larger crops. We would say never plow less than 8 inches deep, and all that you can increase beyond that depth will materially aid in the growth and maturity of your crop.

There were six double teams entered for trial, and all of them were present at the appointed hour. The

place selected for the plowing was a beautiful level spot near the village, owned by Col. Ivers Phillips, and known by the name of "Tuttle's Flat." The teams started at precisely ten o'clock, A. M., and entered at once with spirit and energy into their work.

The ground selected was remarkably uniform both in its surface and internal condition, so that real merit and skill were not questions of a doubtful issue. The depth of furrow required by the Committee was nine inches, with the understanding that even ten or eleven inches depth would not be regarded as unmeritorious.

The report of the trial as kept by the Committee is as follows:

	Time of Plowing.	Depth of Furrow.
Alonzo P. Goodridge, Fitchburg,	13 minutes.	11 inch.
Nathan P. Reed, Princeton,	19 do	11 do
W. W. Watson, Princeton,	19¼ do	10 do
Battles & Tuttle, Fitchburg,	20 do	9¼ do
Charles K. Sawyer, Fitchburg,	24½ do	9 do
Farwell & Goodrich, Fitchburg,	26 do	10 do

The plowing, as a whole, was executed in fine style, and we think will compare favorable with that of any previous year. The whip was used but little, and the *unnatural* use of the organs of speech much less.

The Committee found no difficulty in at once determining the merits of the first premium; but in the second and third, more discrimination and reflection were requisite, and we are happy to say that our final decision was both cordial and united.

We have recommended one meritorious gratuity which we trust the Society will see fit to endorse. The plow in this case was held by a minor, and the time occupied second on the list; the depth also was greater

than that attained by any other competitor, but the furrows were left up edgewise and not properly turned, otherwise it would have met with more favor among the list of our awards.

The Committee noticed with much pleasure the work of a plow called Riche's Patent, cast iron beam, manufactured and exhibited by Messrs. Dickenson & Stevens, of Marlboro', Mass. The work performed by this plow was of a high order, and elicited the united and hearty commendations of both the Committee and spectators. We have not time nor space to speak of its merits in detail, as it was not entered for premium, but recommend to our farmers to give its reputed virtues an investigation and trial.

Much more might be said with great propriety in reference to this department of our show, but without trespassing further upon the time and patience of the Society, we respectfully recommend the following awards:

First premium, of $10,00, to Alonzo P. Goodridge, of Fitchburg; used the Double Michigan plow.

Second premium, of $8,00, to W. W. Watson, of Princeton; plow used, Ruggles & Nourse's double swivel.

Third premium, of $6,00, to Battles & Tuttle, of Fitchburg; plow used, W. P. & T. H. Ford's, of Concord, N. H.

The Committee recommend a gratuity of $4,00 to Nathan B. Reed, of Princeton; also to Wm. W. Benson, plowman, and a minor, the sum of $2,00.

All of which is respectfully submitted,

J. S. BROWN, *Chairman.*

Fitchburg, September 24, 1858.

PLOWING—HORSE AND MULE TEAMS.

The Committee on Plowing by Horse and Mule Teams, respectfully report:

Six entries were made, five of them of one pair of horses each, and the other of one pair of mules. Of these, one entry was made too late to be entitled to a premium, and two others did not appear, leaving only four competitors.

Messrs. McIntire & Cushing, of Fitchburg, entered one pair of horses, Nourse, Mason & Co.'s Eagle Plow No. 37½, and plowed their lot in twenty-six minutes, the plow being held by John W. Hollis. Had this entry been seasonably made, Messrs. McIntire & Cushing would have been entitled to the first premium. The Committee unanimously awarded to them a gratuity of $3,00.

Mr. John Brooks, Jr., of Princeton, entered one pair of horses, Nourse, Mason & Co.'s Eagle plow No. 73, and plowed his lot in twenty-nine minutes. We award to him the second premium of $4,00.

Dr. Jabez Fisher, of Fitchburg, entered one pair of mules, Nourse, Mason & Co.'s Eagle plow No. 82, and plowed his lot in thirty-three minutes. The third premium of $2,00 is awarded to him.

Mr. John Minot, of Westminster, entered one pair of horses, and plowed with a plow with a wrought iron mould-board, and of a construction not so modern as the others. The plow was held by Augustus Minot, a minor, and the work was done in nineteen minutes. Had his team been slower walkers the quality of the plowing would have been better. The Committee award to the plowman, Augustus Minot, a gratuity of $2,00.

The depth of all the plowing was not less than six inches and not over eight inches, and was as deep as the nature of the soil would well admit. The piece of land allotted to this match was extremely difficult to plow with any team, being of a thin and hard soil, quite stony, with a subsoil almost impenetrable to any plow and any team. With horses, who usually travel considerably faster then oxen, it required great care and skill to keep a true furrow; and the Committee are unanimously of opinion that under the circumstances, the work was done extremely well.

E. TORREY, *Chairman.*

WORKING OXEN.

The Committee on Working Oxen submit the following report:

There were eleven teams entered for exhibition, ten of which were on the ground. The drawing of 4000 lbs. up the hill at the head of the Common; also the backing of the same was performed generally with quietness and in a manner gratifying to the Committee, who found it somewhat difficult to discriminate between the several teams, where all did their work so well. They award however, according to their judgment, the following premiums:

D. W. Blood, Pepperell, first premium,	$7,00
E. A. Goodrich, Fitchburg, second premium,	6,00
N. B. Reed, Princeton, third premium,	5,00

Albert Stratton, Leominster, fourth premium,	4,00
Samuel Shattuck, Fitchburg, fifth premium,	3,00
J. P. Reed, Princeton, gratuity,	5,00
J. P. Reed, Princeton, best teamster,	2,00

JACOB HASKELL, For the Committee.

DRAUGHT HORSES.

It happens to be our duty to say a few words in regard to the Draught Horse. We do not feel inclined at this time to make a lengthy report, but we should do injustice to ourselves and this indispensible animal, should we not say a word in his favor.

We believe the horse, and particularly the draught horse, to be the most useful animal that moves upon the face of the earth. We do not usually appreciate blessings and privileges fully until we are deprived of them. Consider then, for a moment, our condition if the horse were stricken from existence. The world almost comes to a stand still, particularly the agriculturist. What is it that plows our land, carries our manure, covers our seed, cuts our hay and grain, threshes the latter, moves all our produce to our barns and market? The draught horse. Of what use are our canals without him? It is true steam may be used; but without the horse, canals with steam, or even the railroad with its engine and car would become almost a dead letter, for the horse has first to transport all our produce and freight from

different parts of the land before steam becomes available. The horse is capable of being trained and educated to do almost anything. We believe there is a great lack on the part of the owners of horses in training them when young for after service, for then it can be done with little or no whipping, and there is scarcely any animal so tractable, or that will appreciate kindness so well as the horse, or that has so much pride in appearing well. The horse has always been man's most faithful servant, in time of war and peace, and the draught horse is his indispensable servant. The fancy horse like ladies' jewelry, well enough in its place, but not very essential.

There were 15 entries for draught,—13 teams drew. Most of the teams performed their work very well. The Committee were of a unanimous opinion that there was a desire on the part of those who drew to load their teams too heavy, to their disadvantage. They regret there were no more premiums to award. There were a noble span of greys, entered by Messrs. McIntire & Cushing, that performed well, and a pair of horses, entered by Jona. Whitman, whose performance was creditable, and also a pair of mules, entered by Jabez Fisher, that attracted much attention by their great power.

The Committee, after examining the matter carefully, have awarded the following premiums:

DOUBLE TEAMS.

First premium, to J. W. Hollis, of Fitchburg, $6.00.

Second premium, to John Brooks, Jr., of Princeton, $4.00.

SINGLE TEAMS.

First premium, to Liberty Wellington, of Ashby, $5.00.

Second premium, to Jos. A. Battles, of Fitchburg, $3.00

All of which is respectfully submitted,

LORRISTON STOCKWELL, *Chairman.*

STALLIONS AND BREEDING MARES.

The Committee on Stallions and Breeding Mares have attended to that duty, and award as follows:

For the best stallion, first premium, to Henry Chase, of Templeton, $6,00.

Also your Committee recommend a gratuity of $2,00 each for their stallions, to Wm. M. Pride, Fitchburg; Luther Hodgman, Ashby; Allen B. Wood, Westminster; F. Twitchell, Templeton.

For the best breeding mare, first premium, to W. A. Mandell, Lunenburg, $5,00.

For the second best breeding mare, second premium, to E. C. Farwell, Fitchburg, $3,00.

Respectfully yours,

LEONARD DAY, *Chairman.*

TWO AND THREE YEARS OLD COLTS.

The Committee on Two and Three Years Old Colts award the following premiums:

To Jacob Brown, 2d, of Fitchburg, for the best three years old stallion, $3,00

To Charles B. Sawyer, of Fitchburg, for the best three years old gelding, 3,00

To Wm. J. Clifford, of Fitchburg, for the best three years old filly, 3,00

To George Chandler, of Shirley, for the best two years old stallion, 3,00

To Franklin Nourse, of Sterling, for the best two years old gelding, 3,00

To Thomas Whitney, of Shirley, for the best two years old filly, 3,00

ALFRED MILLER, *Chairman.*

YEARLING AND SUCKING COLTS.

There were six yearling and thirteen Sucking Colts entered for premium. In attending to the duties devolving on them, your Committee have felt bound to award premiums on colts coming under their inspection, which possessed in the greatest degree the following characteristics, (so far as they could judge,) namely, the greatest muscular development with high nervous energy, connected with an easy and beautiful action. Secondly, good size with a good form, and enduring constitution.

After an attentive examination, we have awarded on yearling colts,

To J. T. Dinsmore, of Lunenburg, the first premium $3,00
The second to James O. Parker, of Shirley, 2,00

We also recommend a gratuity of $1,00 to Myrick H. Puffer, of Westminster.

On Colts from three to six months old we have awarded

To Ohio Whitney of Ashburnham, the 1st premium $3,00
The second to E. C. Farwell, of Fitchburg, 2,00
The third to S. F. Towne, of Westminster, 1,00

The Committee would say that a number of others which came under their inspection were worthy of premiums, some perhaps equally or nearly so with those to which we have awarded them.

All of which is respectfully submitted,

BENJAMIN WYMAN, *Chairman.*

BULLS.

BLOOD STOCK.

The committee on Bulls award premiums as follows:

For the best North Devon Bull, the first premium of $5,00, to John Brooks, Jr., of Princeton, and a gratuity of $4,00, to Nathan Caswell of Fitchburg, for his North Devon Bull.

GRADE ON NATIVE.

For bulls more than two years old, the first premium to Isaac B. Wooward, of Fitchburg, $6,00
Second premium to J. P. and M. B. Heywood, of Sterling, 4,00
Third premium, to Samuel Osgood, of Sterling, 2,00
For bulls one and less than two years old, the first premium to Joseph Upton, of Fitchburg, 5,00
Second premium to Sewall G. Mirick, of Princeton, 3,00
Third premium to Edward Smith, of Fitchburg, 2,00
For bull calves more than four months old, the first premium to George W. Houghton, of Princeton, 4,00
Second premium to Thomas Billings, of Lunenburg, 3,00
Third premium to Benjamin Wyman, of Westminster, 2,00
And a gratuity to Henry Boyles, of Princeton, 2,00

THOS. BILLINGS, for the Committee.

ISAAC B. WOODWARD'S STATEMENT.

BULL.

The Bull, Frank, which I entered for premium was bred in New York City, his dam is an imported Jersey, his sire was a full blooded short-horn Durham, who once took the first premium at the New York State Show. Frank was three years old the 8th of last July.

MILCH KINE.

The Committee on Milch Kine award the following premiums:

For the best herd of four cows, to John Brooks, Jr., of Princeton, $12,00

For the best Milch cow, the first premium to W. A. Crehore, of Fitchburg, 6,00

For the second best, to J. P. Reed, of Princeton, the second premium of 5,00

For the third best, to N. B. Reed, of Princeton, the third premium of 4,00

HEIFERS.

For the best three years old milch heifer, to Joel Page, of Fitchburg, the first premium of $5,00

For the second best, to Henry Boyles, of Princeton, the second premium of 4,00

For the third best, to N. B. Reed, of Princeton, the third premium of 3,00

For the fourth best, to John Brooks, Jr., of Princeton, the fourth premium of 2,00

For the best two years old milch heifer, to Leonard Day, of Fitchburg, the first premium of 5,00

For the second best, to Thomas Billings, of Lunenburg, the second premium of 4,00

For the third best, to Franklin Nourse, of Sterling, the third premium of 3,00

For the fourth best, to Joseph Upton, of Fitchburg, the fourth premium of 2,00

MOSES SAWYER, 2D, *Chairman.*

JOHN BROOKS, JR'S. STATEMENT.

MILCH KINE.

I have two cows, one 5 years old, the other 4 years old, and two heifers both 3 years old, that I wish to enter for the best herd of four cows or heifers. They are as follows, viz:

Mary is ½ Ayrshire, 5 years old, calved May 15th, 1858, is expected to come in April 1st, 1859. Her calf six weeks old, was worth $10 for veal. Raised her. She gave the first 7 days of June, 204¾ lbs. milk; $1\frac{15}{100}$ of an inch in 10 of her milk at the above trial was cream. She gave the first 7 days of September, 157¼ lbs. milk; $1\frac{28}{100}$ of an inch in 10 of her milk at the above trial was cream.

Pink is ¾ Ayrshire, 4 years old, calved May 1st 1858, is expected to come in April 4th, 1859. Her calf I sold at six weeks old at $9 for veal. She gave the first 7 days of June, 165¾ lbs. milk; $9\frac{5}{100}$ of an inch in 10 of her milk at the above trial was cream. She gave the first 7 days of Sept. 154¼ lbs. milk; 1 inch in 10 of her milk at the above trial was cream.

Plash is 7-8 Ayrshire, 3 years old, calved April 7th, 1858, is expected to come in Jan. 20, 1859. She killed her calf at the time she dropped it. She gave the first seven days of June, 134 lbs. milk; $1\frac{1}{10}$ of an inch in 10 of her milk at the above trial was cream. She gave the first 7 days of Sept. 138½ lbs. milk; $1\frac{2}{10}$ of an inch in 10 of her milk at the above trial was cream.

Daisy is 7-8 Ayrshire, 3 years old, calved April 7th, 1858, is expected to come in Feb. 20th, 1859. Her calf at six weeks old was worth $10 for veal. Raised her. She gave the first 7 days of June 124¾ lbs. milk; $1\frac{1}{10}$

of an inch in 10 of her milk at the above trial was cream. She gave the first 7 days of Sept. 135 lbs. of milk; $1\frac{2}{10}$ of an inch in 10 of her milk at the above trial was cream.

I also enter one for the best three year old milch heifer, viz:

Roan is 7-8 Ayrshire, calved Aug. 6th, 1858, is expected to come in June 5th, 1859. Her calf I sold at three weeks old for veal at $4,00. She gave the first 7 days of Sept. 176 lbs. milk; $19\frac{3}{4}$ lbs. cream, from which we made $11\frac{1}{2}$ lbs. butter; $1\frac{4}{10}$ of an inch in 10 of her milk at the above trial was cream.

The above cows and heifers were turned out to pasture the 15th day of May, and have had no other keeping since that time until the 28th of August, when I turned them out at night after milking into a mowing, They did not run in the mowing at all in the day time.

W. A. CREHORE'S STATEMENT.

COW.

This cow I offer for premium is five years old, Devon and Native breed. She calved the 20th of last September; will calve again next April. I have weighed her milk on the 1st and 15th of each month during the year, and she gave a fraction over 22 lbs. per day. I have sold her milk, so that I could not try her for butter, but her milk is of the very best quality. Her keeping last winter was good hay, with two quarts of meal; her

chance for pasturing this summer has been hard. She has been on what is called Fox Hill, near A. P. Kimball's, tied to an iron bar, with chain 14 feet long, during the summer, (and this fall in better feed,) but tied to the bar same as in the summer. July and August she was kept in the barn afternoons.

J. P. REED'S STATEMENT.

COW.

The cow *Fanny*, which I offer for premium, is seven years old, of Holderness and Ayrshine breed, raised in Princeton, by myself. Time of calving, February 8, 1858. Of the quality of the calf the Committee can judge. Last dried the last of December, 1857, just six weeks before calving; time of next calving, March, 1859. Keeping, nothing but pasture feed.

Weight and quantity of milk, beer measure, first week in June:

June 1st,	morn'g	16.25	lbs,	6.50	quarts;	even'g	21.00	lbs,	8.40	quarts.
" 2nd,	"	17.25	"	6 90	"	"	20.25	"	8.10	"
" 3rd,	"	18 00	"	7.20	"	"	19 75	"	7 90	"
" 4th,	"	16 00	"	6.40	"	"	21.50	"	8.60	"
" 5th,	"	17.00	"	6.80	"	"	21.00	"	8.40	"
" 6th,	"	16.50	"	6.60	"	"	20.00	"	8 00	"
" 7th,	"	17.50	"	7 00	"	"	20 50	"	8.20	"
		118 50		47.40			144 00		57.60	
							118.50		47.40	
Total							262 50		105 00	

Average weight per day, 37 1-2 lbs; average measure, 15 quarts per day.

Weight and quantity of milk, beer measure, for the first week in September:

Sept. 1st,	morn'g,	15 25	lbs.	6 10	quarts;	even'g	18.50	lbs.	7 40	quarts.
" 2nd,	"	15.50	"	6 20	"	"	18 50	"	7.40	"
" 3rd,	"	15.25	"	6.10	"	"	18 25	"	7 30	"
" 4th,	"	15 00	"	6 00	"	"	19.00	"	7.60	"
" 5th,	"	15 25	"	6 10	"	"	18 25	"	7.30	"
" 6th	"	15.75	"	6.30	"	"	17.75	"	7.10	"
" 7th	"	15 50	"	6.20	"	"	18 50	"	7.40	"
		107.50		43.00			128.75		51 50	
							107.50		43,00	
	Total						236 25		94.50	

Average weight per day, 33 $\frac{75}{100}$ lbs.; average measure, 13 1-2 quarts per day, seven months after calving.

When on trial we could not set all her milk for butter as we were obliged to use some of it, but it is of superior quality; we have made 158 lbs. of butter this season, after using what milk we wanted, and selling some quarts besides. Said cow has never had any meal or roots.

JOEL PAGE'S STATEMENT.

HEIFER.

My three year old heifer that I offer for premium, calved July 2d, 1858. Her weight of milk in 7 days, commencing July 7th, 1858, was 234 1-4 lbs; the first 7 days in September was 193$\frac{1}{4}$ lbs. Her feed at either trial was nothing extra.

LEONARD DAY'S STATEMENT.

HEIFER.

The heifer which I offer for premium, was two years old last February. She came in the first of June, and I bought her the 17th of the same month, and found that she was an extra heifer. The last seven days of June I had her milk weighed; she gave 212 lbs., averaging little more than 30¼ lbs. per day. Did not put her on trial for butter, because her milk was all sold. The first 7 days of September, she gave 152¾ lbs. milk—nearly 22 lbs. per day, of which was made 7¼ lbs. of butter. Her breed is Durham and native.

N. B. Her keeping through the summer has been on "Fox Hill;" tied with a chain 14 feet long, attached to an iron bar, and moved once a day. In September when on trial, she was tied as above, in my mowing; and fed once a day with corn fodder. I think she would have given more if she could have had her liberty as other cows, and gone to the water when she pleased. She has never had any meal.

TWO AND THREE YEARS OLD HEIFERS.

Your Committee on two and three years old heifers having attended to their duty, beg leave to submit the following report:

We found eight in this class of heifers on the ground, all very fine animals, and after considerable discussion and discrimination we made the following awards:

To John Brooks, Jr., of Princeton, for the best two years old heifer, the first premium of $4,00

To W. W. Watson, Princeton, for the second best two years old heifer, the second premium of $3,00

To W. W. Watson, Princeton, for the third best two years old heifer, the third premium of 2,00

It is evident to the minds of the Committee that the farmers of Worcester North are taking more interest in the rearing of dairy stock. As the dairy is undoubtedly one of the principal sources of profit to the farmer, it is highly important that he should be particular in his selections. The animals on exhibition to day evinced the good taste and judgment of those who placed them on exhibition, and your Committee regret exceedingly that their premiums were so soon exhausted.

J. P. HEYWOOD, *Chairman.*

YEARLING HEIFERS AND HEIFER CALVES.

The Committee on Yearling Heifers and Heifer Calves, have attended to their duty, and beg leave to make the following report:

To most farmers in this vicinity, the importance of raising stock can hardly be estimated too highly; for, besides the value of the animals in themselves, it is upon his stock that the agriculturist must chiefly rely to procure those fertilizing materials so necessary

to make his farm productive and profitable. And to a great many of the members of this society that part of their stock which constitutes their diary, is of more consequence than all the rest. Upon all such the question is often pressed, how can the best cows be procured, and their number kept complete, when vacancies occur from age, disease or accident? Is it better or more profitable to raise our own cows than to depend upon buying such chance animals as may come in our way? In the opinion of your Committee, there can be but one answer to this question, and that is, raise your own dairy stock. And we are glad to find, from the large number and good quality of heifers on exhibition to-day that this opinion is becoming more prevalent among the members of this association. Without hesitation, then we recommend increased attention to the rearing of heifer calves. Breed from the best cows you possess or can procure; and, as the good qualities of the animal probably depend quite as much on the male progenitor as the female, make, when it is practicable, judicious crossings with such blood stock as have been tried and approved for their good milking qualities; or else, begin and carry out, long and patiently, such a process of selection and training as shall make the dairy excellencies of your own cows so fixed and permanent, that you can rely upon their offspring inheriting their own good properties. At any rate, raise your own heifer calves, and, in the end, it will be more economical and satisfactory.

There were on exhibition, demanding the attention of your Committee, nearly 40 yearling heifers and heifer calves. After a thorough examination of these,

and due deliberation, the following premiums were awarded, and gratuities recommended:

YEARLING HEIFERS.

To John Brooks, Jr., of Princeton, the first premium of $3,00

To Henry Boyles, of Princeton the second premium of 2,00

To S. G. Mirick, of Princeton, the third premium of 1,00

And a gratuity of $1,00 to each of the following persons, viz: Nathan Caswell, and Lawrin Pratt, of Fitchburg; and L. L. Whittemore, of Asburnham.

SUCKLING HEIFER CALVES.

To W. W. Watson, of Princeton, the first premium of $3,00

To John Brooks, Jr., of Princeton, the second premium of 2,00

To Jonas Marshall, of Fitchburg, the third premium of 1,00

And a gratuity of $1,00 to Dr. Wm. D. Peck, of Sterling.

HEIFER CALVES RAISED BY HAND.

To Samuel Haws, of Fitchburg, the first premium of $3,00

To J. P. Reed, of Princeton, the second premium of 2,00

To N. B. Reed, of Princeton, the third premium of 1,00

And a gratuity of $1,00 to each of the following persons: Abel Marshall, and Hosea M. Caswell, of Fitchburg.

A large white yearling heifer with a calf by her side, owned by W. W. Watson, was thought by the Committee worthy of "honorable mention," but they could not award a premium for her, because no statement of age, manner of rearing &c., was made, either verbally or written, according to the rules of the Society.

Respectfully submited.

C. C. FIELD, *Chairman.*

J. P. REED'S STATEMENT.

CALF.

The calf I offer for premium is seven months old, of the Holdeness breed, and has been raised in the following manner: Taken from the cow at twelve hours old, and learned to drink new milk, which it had until it was three days old; since that time nothing but skimmed milk, hay, grass, and water; no meal, grain, or roots have ever been given her; weight a little short of 400 pounds.

STEERS.

The Committee on two and three years old and trained Steers, award the following premiums, viz:

To N. B. Reed, of Princeton, for the best pair of three years old steers, weight 2,490 lbs., we award the first premium of $4,00

To Henry Boyles, of Princeton, second best, weight 2,590 lbs., the second premium of 3,00

To Josiah Page, Westminster, the third premium of 2,00

TWO YEARS OLD STEERS.

To W. W. Watson, of Princeton, for the best pair of two years old, weight 2,550 lbs., the first premium of $3,00

To N. B. Reed, of Princeton, weight 2,300 lbs., the second premium of 2,50

To Daniel Works, of Fitchburg, weight 2,190 lbs., the third premium of 2,00

TRAINED STEERS.

There were six pairs entered, all of which were well trained, and the Committee have awarded the first premium

To Joseph P. Reed, of Princeton, of $3,00

To N. B. Reed, of Princeton, the second premium of 2,00

The Committee would recommend a gratuity of $2,00 each to Lorriston Stockwell, of Fitchburg, Nathan Danforth, of Princeton, and $1,00 to Josiah Page, of Westminster.

LUKE WELLINGTON, *Chairman.*

YEARLING STEERS AND STEER CALVES.

Your Committee on yearling Steers and Steer Calves have awarded premiums as follows, viz:

To W. W. Benson, of Princeton, for the best pair of yearling steers, the first premium of $3,00
To N. B. Reed, of Princeton, for second best, 2,00
To W. W. Watson, of Princeton, for third best, 1,00
To Nathan Danforth, of Princeton, for the best pair of steer calves, the first premium of 5,00
To J. G. Woodward, of Ashburnham, second best 3,00
To Sewall G. Mirick, of Princeton, third best, 2,00

JEROME W. FOSTER, *Chairman.*

FAT CATTLE.

The Committee on Fat Cattle award the following premiums:

First premium for best fat ox, to Ephraim Turner, of Phillipston, $8,00
Second premium for 2d best fat ox, to Ephraim Turner, of Phillipston, 5,00
Third premium for 3d best fat ox, to Ephraim Turner, of Phillipston, 3,00

And recommend a gratuity of $2,00 to Nathan B. Reed, of Princeton, for a fat ox entered for premium.

First premium for best fat cow to Thomas Stearns, of Leominster. $6,00

Second premium for 2d best fat cow to W. W. Watson, of Princeton, $3,00

Third premium for 3d best fat cow to Thomas Stearns, of Leominster, 2,00

First premium for best fat three years old steer to E. Turner, of Phillipston, 6,00

Second premium for 2d best fat three years old steer to Josiah Page, of Westminster, 4,00

STEPHEN SHEPLEY, *Chairman.*

SHEEP.

It gives us pleasure to find the interest in this department on the increase. At the last and present Show there has been a large increase in numbers over previous years; and it is also evident there has been an effort made to obtain improved breeds.

We do not believe that with the old native breed, sheep husbandry would be profitable in this vicinity; and even with the best improved breeds, except to a limited extent, we think it would be doubtful. But we do believe that a majority of the farmers could make it profitable to keep a limited number—we should say, one, or but two at the most, and these should be true cossets.

The expense of keeping a cosset is not great; for if it will find the sweetest feed, it will also eat that which is refused by other stock.

That it is profitable is shown by the following statement of Charles K. Sawyer:

"This cosset is 4 years and 3 or 4 months old, and has had seven lambs. I sold six of them when about three months old, for which I received 19 dollars. Her fleece the present year, after being washed, weighed five pounds,"

There were 9 entries; two flocks, and seven cossets—in all 32.

The committee having examined those presented, award the following premiums:

First premium to James McIntire, of Fitchburg, for the best flock of 18, Native and Leicester, $4,00

Second premium to Allen B. Wood, Westminster, for the 2d best flock of 10, South Down and Native, 2,00

First premium to Charles K. Sawyer, of Fitchburg, for the best Cosset, South Down, 2,00

Second premium to James McIntire, of Fitchburg, for the 2d best Cosset, Cotswold, 1,00

Third premium to Edward Bacon, of Westminster, for the 3d best Cosset, Native and Leicester, ,50

To Allen B. Wood of Westminster. for French Merino Buck, a gratuity of $1,00.

A. F. ANDREWS, *For the Com.*

SWINE.

The Committee on swine have given to their charge their undivided close attention, and have not once faltered in the performance of their duties. To this they believe themselves indebted to the wise conclusion at which they arrived at the outset, not to close their eyes upon the inevitable fact that all sages have uttered, and poets sung in praise or burlesque of the subject of your Committee's investigation, has failed to change the settled and inate convictions of civilized men that in the hog there are material elements and qualities which commend him to the careful attention of practical farmers. The annual exhibition which brings with it so much to gladden and exhilerate the mind, has for its purpose not alone the development of a transient mirth or the interchange of gladsome pleasantries, important as these may be, but the higher purpose—also, your Committee believe, of securing to the best uses of society an universal knowledge of the ways and means best adapted to the improvement and development of the varied material interests that find a representation at our annual shows. Amid these varied departments the swine may well command the attention of those who would add material value to the great staples of the country. And your Committee take pleasure in saying that in no previous year has there been more satisfactory evidence that a just estimation is had among farmers of the importance attaching to this department of stock. The mysteries connected with the phenomena of animal life are such as afford ample occasion not only for the experiment of the

practical farmer, but have not failed to impart zeal to the speculations of philosophy. The apparent intelligence of what is termed the lower order of animals would seem to demand of those entrusted with their care, sufficient attention at least to secure to them comfortable apartments and suitable food. A generous and humane attention bestowed upon the class of animals, it is the province of your Committee to consider, will not fail of securing pecuniary reward and may promote a purpose beyond the mere comfort of the subjects on which it is conferred.

The Committee award the following premiums:

First premium to W. A. Crehore, best boar,	$4,00
Second premium to W. F. Clifford, 2d best boar,	4,00
First premium to J. Fisher, best boar, under one year,	2,00
First premium to Enoch Caldwell, best fat hog,	4,00
Second premium to Enoch Caldwell, 2d best fat hog,	3,00
First premium to Isaac B. Woodward, best fat pig	3,00
Second premium to W. E. Arnold, 2d best fat pig,	2,00
First premium to Asa Sawyer, best breeding sow,	3,00
Second premium to Leonard Day, 2d best breeding sow,	2,00
Third premium to Isaac B. Woodward, 3d best breeding sow,	1,00
First premium to Levi Kendall, best weaned pigs,	2,00
Second premium to Ivers Phillips, 2d best weaned pigs,	1,50
Third premium to Leonard Day, 3d best weaned pigs,	1,00

AMASA NORCROSS, *Chairman.*

POULTYY.

Your Committee have been pleased to see among the farmers of Worcester North, an increase of interest in a department of farming, second to none in pleasurable excitement, and as a source of profit, undoubtedly excelling all others; an interest at once an evidence, and result, of their recovery from the relapse and consequent apathy, naturally following an epidemic so wide spread, and malignant in form, as the "hen fever" of 1848 and 1850.

The raising of poultry is unquestionably profitable, the returns being speedy, sure and large, in proportion to the capital invested; and were it not for the somewhat too common tendency to regard it as "rather small business"—as "well enough to keep a few hens; convenient, perhaps; don't amount to much either way," &c., &c., this fact might have become more apparent. Two things may be observed in this connection; first, that no business can properly be considered *small*, that pays a good per cent on the capital; and secondly, waiving even this, and granting, that, as often conducted on a diminutive scale, the receipts are small, the net profit small, and the business small, still the trouble and outlay are also small, and if it is really too Liliputian to be reputable, why not make it better worth attention, by increasing and extending it. It may be thought hardly worth while to keep a hen a year, and only get a dollar for her services; but *a thousand hens yielding a thousand dollars net profit*, sounds differently. We have no room, in a report, necessarily brief, to go into detail in this matter, but we have carefully investigated

the subject, and can give what is, after all, the only thing possesing anything of interest, namely "a result." We have taken indiscriminately the statements, (found among the reports of different agricultural societies in past years) of nine individuals in different portions of the State, and give below the aggregate. Commencing the year with about eight hundred hens, the expenses of keeping amounted to $732,28, (reckoning from the preceding autumn, and including of course the expense of wintering;) and the receipts, including chickens and eggs sold, consumed, and on hand, (making allowance from the stock on hand, to make it fully equal to the number with which they started) to over $1,410,16, showing a profit, clear above expenses of $677,88. In seven of these cases, no mention was made of manure or feathers. In the other two they were *not* included in the receipts. The receipts too, were unquestionably smaller than they would be in our immediate neighborhood; the prices, so far as quoted, being considerably less than we are accustomed to. Assuming that the manure and feathers were not included, (which from the wording of the statements we feel fully justified in doing,) and adding to the receipts sufficient to make up the difference between *our* prices, and the general average, (much reduced by the prices in districts not so closely connected with large consuming and non-producing centers as we are) and the profit would be increased so as to fully equal one dollar per head of the original stock, and net over one hundred per cent upon the outlay. What, that the farmer raises or keeps, or produces, will excel this? Dethroning the *pig* from the proud position of pre-eminence which he

has hitherto held in our estimation, we willingly pronounce poultry the "monarch of all he surveys," and we ask and expect all, to either controvert our positions and arguments, or "bow their heads in reverence," with us. As to the varieties and breeds, we do not propose to enter the lists at all, or undertake to show which is the best, or why we think so. Truly "their name is legion," and each finds able defenders, hardly any two of whom agree. One wants eggs, another roast chicken, another fine color, another size, &c., &c., and we sincerely pity the man who undertakes to secure a place in an insane hospital, by trying to maintain and defend an opinion that any one kind is better than another. If ever the celebrated "Old Grimes" breed is heard of (except in song) which it will be recollected laid two eggs a day ordinarily, and as a special act of piety signalized the Sabbath by laying three, we will enlist as its defender. Meanwhile experience will soon satisfy each one which will answer his particular purpose best.

We have confined our remarks more particularly to common barn yard fowls, not from any particular preference, but from the necessity of drawing the line somewhere, and having continually before us the dread of making our report too lengthy. A recent writer in the *Country Gentleman* says he raised from six hens and one cock, ninety young turkeys, worth one hundred and fifty dollars. The expense he does not speak of, but it could not have been very great, as they took care of themselves after four weeks; and did space allow, as good a word might be spoken for any and all of the poultry kind.

Here, gentlemen, then, is a fair field. If, as many

complain, it be true that corn and wheat can be purchased cheaper than it can be raised; if, by the system of railway communication the great West, with its cheap, rich lands is brought too near for successful com-competition, in those great staples, try something else that will pay, and instead of being obliged to import, let us export from Worcester North thousands of dozens of eggs and tons of poultry.

With regard to the exhibition, let us make a single suggestion. The pens in which the poor creatures were huddled (not exhibited) were quite too small. An inferior lot, in a large roomy cage, looks better than a superior lot packed in a box too small to allow them an opportunity to hardly move or even stand up. A suitable cage is easily made, and a few laths or strips of board, a few nails, and a very little skill, will often give the palm of superiority to a lot which would otherwise rank as second best. "If a thing is worth doing it is worth doing well." If poultry are worth exhibiting they are worth having justice done them. With this exception, the show was a creditable one, but still not what we hope to see next year.

The Committee award the following premiums:

To James McIntire, for the best dung-hill fowls, not less than six, $2,00

To Addison Howe, for the 2d best dung-hill fowls, not less than six, 1,00

To Wm. E. Arnold, for the 3d best dung-hill fowls, not less than six, ,50

To Benjamin Safford, for the best turkeys, not less than six, 2,00

To George Chandler, for the 2d best turkeys, not less than six, 1,00

To D. S. Eaton, for the 3d best turkeys, not less than six, ,50

To Allen B. Wood, for the best geese, not less than six, 1,00

To J. W. Smith, for the best ducks, not less than six, 1,00

We recommend in addition to the above that gratuities be paid as follows: To Sam'l Farwell, 2d, for ducks, 50 cts.; to C. W. Billings, for chickens, 50 cts.

Respectfully submitted by

GEORGE E. TOWNE, *For the Committee.*

EXPERIMENTS.

When the Committee on experiments entered upon the duties assigned them, they found a very liberal amount had been offered in premiums by the Trustees of the Society; and yet there were but three entries. Of these, two had been made by Mr. John Brooks, Jr., of Princeton. One, for the best experiment in feeding Neat Stock, and the other, for the best experiment in raising Potatoes, upon not less than one acre of land, the whole to be manured alike.

It will be seen by the statements made by Mr. Brooks, that the first of these experiments was well tested. He commenced feeding two cows on the 19th of December, 1857. At night a quantity of hay was weighed out for each cow, and they were allowed to eat all they would, during the night and the following

day. Then what remained was weighed again, and deducted from the amount weighed on the previous night. Water was also weighed and given to them twice each day. If any extra feed was given, that was weighed, and also the milk, and the butter made from each cow. This first trial continued through a period of eight weeks. On the 23d of February he commenced a second trial with two heifers, this, he continued for the same length of time, and in a similar manner as the first. Both these trials were successful: and we believe great credit is due to Mr. Brooks, for his untiring efforts during so long a period. We therefore award to him the first premium of $4,00.

The other experiment made by Mr. Brooks in raising potatoes, was successful so far as this, that he raised a good crop by putting guano in the hill and by planting small potatoes. This would be considered by some as an experiment, but the Committee were unanimous in the opinion that it did not entitle him to a premium. And, besides, his lot by measurement, contained but 139 rods. Considering, however, the fact that Mr. Brooks took special pains in planting, and in taking care of his lot, and in harvesting his crop, and in giving to the Society a full statement ef the facts, we recommend to him a gratuity of $2,00. We do this with the hope that his statement will be published with the transactions of the Society, and that we all shall receive benefit from the experience of one of our best farmers.

The other entry was made by Mr. Abel Marshall, of Fitchburg. It was for the best experiment in raising potatoes upon not less than one acre of land, the whole

to be manured alike. Here we found an experiment had been tried with the seed. Although the yield was small, yet the experiment was such as to entitle him to a premium. We, therefore, award to Abel Marshall, of Fitchburg, the first premium of $4,00.

J. M. HARRIS, *Chairman.*

JOHN BROOKS, JR'S STATEMENT.

TRIAL OF COWS AND HEIFERS.

I fed the following cows and heifers last winter and spring, and now beg leave to call your attention to the following Tables.

FIRST TRIAL.

DORA

Is 4 years old, April, 1857; 7-8 Ayrshire; dropped calf Aug. 13, 1857; is expected to come in June 30, 1858.

Date.	Live weight at 12 M.	Weight of Hay.	Water Morning.	Evening.	Total.	Milk Morning.	Evening.	Total.	Cream Morning.	Evening.	Average.	Manure.	Temperature. Morning 7 o'clock.	2 o'clock P. M.	Evening 9 o'clock.	Average
1857.	lbs.	lbs	lbs.	lbs	lbs.	lbs.	lbs.	lbs	Per cent.	Per cent.	Per cent.	lbs.	ab'v 0	ab'v 0	ab'v 0	ab'v 0
Dec. 19	870	24	41.50	28	69 50	4.75	3 81	7.56	1.50	1 90	1.70	44	31	27	25	27 66
" 20	866	32	26	40	66	4.75	3.56	8 31	1 40	1.90	1.65	59	21	27	21	23
" 21	874	24	33	32	65	5 37	3 50	8.87	1 50	1.70	1.60	52	21	32	29	27.33
" 22*	865	30	35	37	72	4.81	3 62	8.43	1.60	1.80	1.70	50	32	36	31	33
" 23	870	28	36	30	66	4 94	3.56	8 50	1 40	1.90	1.65	49	26	30	31	29
Average daily weight.	869	27.60			67.70			8.33			1.66	50 80				27.99

*Hand full salt.

Ten pounds or 4 quarts of milk from the above trial made 10 ounces of butter.

NORA

Is 4 years old, April, 1857; 7-8 Ayrshire; dropped calf July 29, 1857; is expected to come in May 30, 1858.

Date.	Live weight at 12 M.	Weight of Hay.	Water Morning.	Evening.	Total.	Milk Morning	Evening.	Total.	Cream Morning.	Evening.	Average.	Manure.	Temperature. Morning 7 o'clock.	2 o'clock P. M.	Evening 9 o'clock	Average
1857.	lbs.	lbs.	lbs.	lbs	lbs.	lbs	lbs	lbs.	Per cent	Per cent	Per cent.	lbs.	ab'v 0	ab'v 0	ab'v 0	ab'v 0
Dec.19	852	23	33	20	53	4.44	3.25	7.69	1.50	1.80	1 65	48	31	27	25	27.66
" 20	864	30	19	13	32	5 44	3.19	3.63	1.80	1.80	1.80	60	21	27	21	23
" 21*	862	22	39	23	62	5.19	3 44	3.53	1.40	1.50	1.45	55	21	32	29	27.33
" 22	863	25	19	16	35	4.62	3.32	7.94	1.50	1.60	1 55	58	32	36	31	33
" 23	862	28	30	24	54	5.19	3.44	8.63	1.60	1.70	1.65	60	26	30	31	29
Avge daily wt.	860.60	25.60			47.45			8.28			1 62	56.20				27.99

*Hand full salt.

Ten pounds or 4 quarts of milk from the above trial yielded 10 ounces of butter.

SECOND TRIAL.

DORA.

DATE.	Live weight at 12 M.	Weight of Hay.	Cotton Seed Meal.	Water Morning.	Evening.	Total.	Milk Morning.	Evening.	Total.	Cream Morning.	Evening.	Average	Manure.	Temperature. Morning 7 o'clock	2 o'clock P. M	Evening 9 o'clock	Average.
1857.	lbs.	lbs.	lbs.	lbs	lbs	lbs.	lbs.	lbs.	lbs.	Per cent.	Per cent.	Per cent	lbs	ab'v	ab'v	ab'v	a b'v
Dec 24*	872	23	2.75	33	32	65			8 33			1 63	50 80	0	0	0	0
" 25†	856	26	2.75	45	36	81	6	4 75	10.75	1 70	2 20	1 95	62	11	17	16	14 66
" 26	830	20	2.75	31	36	67	6 56	4.50	11 06	1.70	2 30	2 00	64	15	13	13	13 66
" 27	831	21	2 75	42	37	79	7 19	5	12.19	1.80	1.80	1 80	79	4	12	9	8 33
" 28	851	18	2 75	31	32	63	7	5	12	1.50	2.10	1 80	72	28	31	28	9
" 29	842	25	2.75	29	36	65	7	4.56	11.56	1.50	2.10	1·80	71	28	28	25	27
Avge daily wt.	854	22	2.75			71			11.51			1 87	69.60				18.56

*Fed on English Hay.
†Hand full salt.

Ten pounds or 4 quarts of milk from the above trial yielded 12 ounces of butter.

NORA.

DATE.	Live weight at 12 M.	Weight of Hay.	Cotton Seed Meal.	Water Morning.	Evening.	Total.	Milk Morning.	Evening.	Total.	Cream Morning.	Evening	Average.	Manure.	Temperature. Morning 7 o'clock.	2 o'clock P. M.	Evening 9 o'clock.	Average.
1857	lbs.	lbs.	lbs.	lbs.	lbs	lbs	lbs.	lbs.	lbs	Per cent.	Per cent	Per cent.	lbs	ab'v	ab'v	ab'v	ab'v
Dec.24*	870	26	2 75	51	44	95			8.28			1.62	56.20	0	0	0	0
" 25†	879	28	2.75	48	43	91	6.50	4.44	10.94	1.60	1.90	1.75	64	11	17	16	14 66
" 26	880	20	2.75	37	36	73	7.44	4.62	12 06	1.60	1 90	1.75	64	15	13	13	13.66
" 27	862	26	2 75	23	51	74	8 44	5	13.44	1.90	1.90	1 90	70	4	12	9	8.33
" 28	870	18	2.75	33	36	69	8.50	5 19	13.69	1.50	1 80	1 65	67	28	31	28	29
" 29	852	25	2.75	29	37	66	9	5.19	14.19	1.50	1.90	1.70	68	28	28	25	27
Avge. daily wt.	868.60	23 40	2.75			74.80			12.86			1.75	64.60				18.35

*Fed on English Hay.
†Hand full salt.

Ten pounds or 4 quarts of milk from the above trial yielded 10 ounces of butter.

THIRD TRIAL.

DORA.

Date.	Live weight at 12 M.	Weight of Hay.	English Turnips.	Water Morning.	Water Evening.	Water Total.	Milk Morning.	Milk Evening.	Milk Total.	Cream Morning.	Cream Evening.	Cream Average.	Manure.	Temperature. Morning 7 o'clock.	Temperature. 2 o'clock P M.	Temperature. Evening 9 o'clock.	Temperature. Average
1857.	lbs.	lbs.	lbs.	lbs.	lbs	lbs	lbs.	lbs.	lbs.	Per cent.	Per cent.	Per cent.	lbs.	ab'v 0	ab'v 0	ab'v 0	ab'v 0
Dec. 30 to Jan. 3, '58*	861	27	15			66			8,33			1,66	50,80				
" 4	860	28	15	36	31	67	5,75	4,32	10,07	1,30	1,70	1,50	84	35	42	41	39,33
" 5	874	24	15	39	24	63	5,75	4,32	10,07	1,50	2,00	1,75	66	37	40	26	34,33
" 6	876	26	15	40	35	75	6,44	4,19	10,63	1,30	2,20	1,75	72	13	14	15	14
" 7†	875	22	15	37	34	71	6,56	4,37	10,93	1,50	2,00	1,75	75	21	24	10	18,33
" 8	868	22	15	30	40	70	6,25	5,00	11,25	1,50	2,10	1,80	77	1	12	5	6
Average daily weight.	870,70	24,40	15			69,20			10,59			1,71	74,80				22,39

*Fed on English Hay.

†Handful salt.

Ten pounds or 4 quarts of milk from the above trial yielded 11 ounces of butter.

NORA.

Date.	Live weight at 12 M.	Weight of Hay.	English Turnips.	Water Morning.	Water Evening.	Water Total.	Milk Morning.	Milk Evening.	Milk Total.	Cream Morning.	Cream Evening.	Cream Average.	Manure.	Temperature. Morning 7 o'clock.	Temperature. 2 o'clock P. M.	Temperature. Evening 9 o'clock.	Temperature. Average
1857.	lbs.	lbs.	lbs.	lbs.	lbs	lbs.	lbs.	lbs.	lbs.	Per cent.	Per cent.	Per cent.	lbs.	ab'v 0	ab'v 0	ab'v 0	ab'v 0
Dec. 30 to Jan. 3, '58*	862	28	15			65			8,28			1,62	56,20				
" 4	856	24	15	29	12	41	7,00	4,50	11,50	1,30	1,50	1,40	79	35	42	41	39,33
" 5	862	24	15	42	20	62	6,50	4,50	11,00	1,40	1,60	1,50	58	37	40	26	34,33
" 6	876	26	15	40	18	58	7,06	4,32	10,38	1,30	1,70	1,50	61	13	14	15	14
" 7†	864	22	15	35	38	73	7,12	4,25	11,37	1,50	1,70	1,60	68	21	24	10	18,33
" 8	868	24	15	36	32	68	7,12	4,44	11,56	1,50	1,80	1,65	65	1	12	5	6
Average daily weight.	865,20	24	15			60,40			11,16			1,53	66,20				22,39

*Fed on English Hay.

†Handful salt.

Ten pounds or 4 quarts of milk from the above trial yielded 9 ounces of butter.

FOURTH TRIAL.

DORA.

DATE.	Live weight at 12 M.	Weight of Hay.	Weight of Ruta Bagas.	Water Morning.	Water Evening.	Total.	Milk Morning.	Milk Evening.	Total.	Cream Morning.	Cream Evening.	Average.	Manure.	Temperature. Morning 7 o'clock.	2 o'clock P. M.	Evening 9 o'clock.	Average.
1858.	lbs.	lbs.	lbs.	lbs.	lbs	lbs.	lbs.	lbs.	lbs.	Per cent.	Per cent.	Per cent.	lbs.	ab'v 0	ab'v 0	ab'v 0	ab'v 0
Jan'y. 9	864	21	15	36	36	72	5,75	4,56	10,31	1,40	1,90	1,65	69	16	31	32	26,33
" 10	870	24	15	39	36	75	6,75	4,44	11,19	1,40	1,90	1,65	63	22	32	32	28,66
" 11*	850	26	15	25	48	73	7,00	4,62	11,62	1,40	2,00	1,70	64	25	37	48	36,66
" 12	851	22	15	20	54	74	5,88	5,75	11,63	1,20	1,70	1,45	70	38	39	28	35
" 13	862	22	15	23	25	48	6,06	4,50	10,56	1,30	1,90	1,60	62	21	31	30	27,33
Average daily weight.	859,40	23	15			68,40			10,06			1,61	65,60				30,79

†Handful salt.

Ten pounds or 4 quarts of milk from the above trial yielded 10 ounces of butter.

NORA.

DATE.	Live weight at 12 M.	Weight of Hay.	Weight of Ruta Bagas.	Water Morning.	Water Evening.	Total.	Milk Morning.	Milk Evening.	Total.	Cream Morning.	Cream Evening.	Average.	Manure.	Temperature. Morning 7 o'clock.	2 o'clock P. M.	Evening 9 o'clock.	Average.
1858.	lbs.	lbs.	lbs.	lbs.	lbs	lbs.	lbs.	lbs.	lbs.	Per cent.	Per cent.	Per cent.	lbs.	ab'v 0	ab'v 0	ab'v 0	ab'v 0
Jan'y. 9	852	21	15	24	34	58	7,12	4,44	11,56	1,50	1,50	1,50	60	16	31	32	26,33
" 10	850	24	15	26	40	66	7,44	4,44	11,88	1,50	1,50	1,50	60	22	32	32	28,66
" 11*	846	26	15	28	48	76	7,56	4,25	11,81	1,40	1,50	1,45	56	25	37	48	36,66
" 12	850	22	15	20	46	66	6,81	4,56	11,37	1,40	1,50	1,45	60	38	39	28	35
" 13	855	22	15	21	20	41	6,95	4,50	11,45	1,40	1,50	1,45	56	21	31	30	27,33
Average daily weight.	850,60		15			61,40			11,61			1,47	58,40				30,79

*Handful salt.

Ten pounds or 4 quarts of milk from the above trial yielded 9 ounces of butter.

FIFTH TRIAL.

DORA.

Date:	Live weight at 12 M.	Weight of Hay.	Weight of Carrots.	Water Morning.	Water Evening.	Total.	Milk Morning.	Milk Evening.	Total.	Cream Morning.	Cream Evening.	Average.	Manure.	Temperature. Morning 7 o'clock.	Temperature. 2 o'clock P. M.	Temperature. Evening 9 o'clock.	Temperature. Average.
1858.	lbs.	lbs.	lbs.	lbs.	lbs	lbs.	lbs.	lbs.	lbs.	Per cent.	Per cent.	Per cent.	lbs.	ab'v 0	ab'v 0	ab'v 0	ab'v 0
Jan'y. 14	872	26	15	36	40	76	5,95	4,75	10,60	1,50	1,90	1,70	62	31	40	32	34,33
" 15	858	24	15	20	20	40	6,62	4,44	11,06	1,60	1,80	1,70	61	28	32	31	30,33
" 16*	856	25	15	40	60	100	5,87	4,50	10,37	1,80	1,40	1,60	62	35	44	37	38,66
" 17	860	22	15	20	38	58	6,00	5,25	11,25	1,30	2,10	1,70	60	28	30	22	26,66
" 18	854	20	15	20	45	65	6,87	4,31	11,18	1,30	1,80	1,55	62	18	20	18	18,66
Average daily weight.	860	23,50	15			69,80			10,89			1,65	61,50				29,73

†Handful salt.

Ten pounds or 4 quarts of milk from the above trial yielded 10 ounces of butter.

NORA.

Date.	Live weight at 12 M.	Weight of Hay.	Weight of Carrots.	Water Morning.	Water Evening.	Total.	Milk Morning.	Milk Evening.	Total.	Cream Morning.	Cream Evening.	Average.	Manure.	Temperature. Morning 7 o'clock.	Temperature. 2 o'clock P. M.	Temperature. Evening 9 o'clock.	Temperature. Average.
1858.	lbs.	lbs.	lbs.	lbs.	lbs	lbs.	lbs.	lbs.	Per cent.	Per cent.	Per cent.	Per cent.	lbs.	ab'v 0	ab'v 0	ab'v 0	ab'v 0
Jan'y. 14	836	26	15	22	50	72	6,95	4,31	11,26	1,50	1,60	1,55	52	31	40	32	34,33
" 15	850	24	15	20	20	40	7,19	4,50	11,69	1,20	1,60	1,40	64	28	32	31	30,33
" 16*	848	25	15	40	45	85	7,19	4,37	11,56	1,20	1,20	1,20	62	35	44	37	38,66
" 17	844	22	15	20	36	56	7,00	4,50	11,50	1,00	1,60	1,30	62	28	30	22	26,66
" 18	847	20	15	20	40	60	6,75	4,56	11,31	1,60	1,80	1,70	60	18	20	18	18,66
Average daily weight.	845	23,50	15			62,60			11,46			1,43	60				29,73

*Handful salt.

Ten pounds or 4 quarts of milk from the above trial yielded 9 ounces of butter.

SIXTH TRIAL.

DORA.

DATE.	Live weight at 12 M.	Weight of Hay.	English Carrots.	Water Morning.	Water Evening.	Total.	Milk Morning.	Milk Evening.	Total.	Cream Morning.	Cream Evening.	Average.	Manure.	Temperature. Morning 7 o'clock.	2 o'clock P. M.	Evening 9 o'clock.	Average
1858.	lbs.	lbs.	lbs.	lbs.	lbs	lbs.	lbs.	lbs.	lbs.	Per cent.	Per cent.	Per cent.	lbs.	ab'v 0	ab'v 0	ab'v 0	ab'v 0
Jan. 19-20*	860	23,50				49,80			10,89			1,65	61,50				
" 20			15														
" 21	854	28	15	30	40	70	5,95	4,00	9,95	1,70	1,80	1,75	47	37	32	20	29,66
" 22†	856	24	15	20	60	80	5,62	4,44	10,06	1,40	1,90	1,65	59	18	9	15	14
" 23	872	24	15	20	40	60	6,12	4,38	10,50	1,50	1,90	1,70	61	27	20	9	18,66
" 24	865	25	15	20	50	70	6,19	4,44	10,63	1,50	1,80	1,65	62	38	36	26	33,33
" 25	870	24	15	20	40	60	6,56	4,19	10,75	1,50	1,80	1,65	62	36	45	38	39,66
Average daily weight.	863,40	25	15			68			10,38			1,68	58,20				27,06

*Fed on English Hay.

†Handful salt.

Ten pounds or 4 quarts of milk from the above trial yielded 10 ounces of butter.

NORA.

DATE.	Live weight at 12 M.	Weight of Hay.	English Carrots.	Water Morning.	Water Evening.	Total.	Milk Morning.	Milk Evening.	Total.	Cream Morning.	Cream Evening.	Average.	Manure.	Temperature. Morning 7 o'clock.	2 o'clock P. M.	Evening 9 o'clock.	Average
1858.	lbs.	lbs.	lbs.	lbs.	lbs	lbs.	lbs.	lbs.	lbs	lbs.	Per cent.	Per cent.	lbs	ab'v 0	ab'v 0	ab'v 0	ab'v 0
Jan. 19-20*	845	23,50				62,60			11,46			1,43	60				
" 20			15														
" 21	846	25	15	20	40	60	6,06	3,69	9,75	1,40	1,80	1,60	42	20	37	32	29,66
" 22†	848	23	15	30	56	86	5,62	3,88	9,50	1,60	1,80	1,70	47	15	18	9	14
" 23	854	22	15	20	35	55	6,25	4,06	10,31	1,40	1,80	1,60	50	9	27	20	18,66
" 24	850	23	15	22	45	65	6,25	4,25	10,50	1,40	1,80	1,60	58	26	36	36	33,33
" 25	852	22	15	32	30	60	6,06	4,25	10,31	1,40	1,80	1,60	60	38	38	45	39,66
Average daily weight.	850	23	15			65,20			10,07			1,62	51,40				27,06

*Fed on English Hay.

†Handful salt.

Ten pounds or 4 quarts of milk from the above trial yielded 10 ounces of butter.

SEVENTH TRIAL.

DORA.

DATE.	Live weight at 12 M.	Weight of Clover hay, 2d crop.	Water Morning.	Evening.	Total.	Milk Morning.	Evening.	Total.	Cream Morning.	Evening.	Average	Manure.	Temperature. Morning 7 o'clock.	12 o'clock noon.	Evening 9 o'clock.	Average.
1858.	lbs.	lbs.	lbs.	lbs	lbs.	lbs.	lbs.	lbs.	Per cent.	Per cent.	Per cent.	lbs.	ab'v 0	ab'v 0	ab'v 0	ab'v 0
Jan. 26-30*	863	27	avg.		69			8,33			1,66	50,80				
" 31	861	29	40	72	1,12	5,06	4,06	9,12	1,60	1,60	1,60	55	9	17	8	11,33
Feb'y. 1	874	26	35	50	85	6,44	5,06	11,50	1,70	1,90	1,80	67	6	21	10	12,33
" 2	852	26	40	60	1,00	6,75	6,40	11,25	1,70	1,70	1,70	55	31	32	33	32
" 3†	864	33	40	60	1,00	6,37	6,07	12,44	1,90	1,80	1,85	57	28	35	29	3,67
" 4	875	28	40	60	1,00	7,06	5,19	12,25	1,50	1,90	1,70	58	25	28	21	24,67
Average daily weight.	865,20	28,40			99,40			11,31			1,73	58				22,20

*Fed on English Hay.
†Handful salt.

Ten pounds or 4 quarts of milk from the above trial yielded 11 ounces of butter.

NORA.

DATE.	Live weight at 12 M.	Weight of Clover hay, 2d crop.	Water Morning.	Evening.	Total.	Milk Morning.	Evening.	Total.	Cream Morning.	Evening.	Average.	Manure.	Temperature. Morning 7 o'clock.	12 o'clock noon.	Evening 9 o'clock.	Average.
1858.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	Per cent.	Per cent.	Per cent.	Per cent.	lbs.	ab'v 0	ab'v 0	ab'v 0	ab'v 0
Jan. 26-30*	850	25	avg.		86			8,28			1,62	56,20				
" 31	859	24	40	52	92	3,88	3,56	7,44	1,70	1,80	1,75	56	9	17	8	11,33
Feb'y. 1	854	28	40	46	86	5,50	3,36	9,86	1,60	1,80	1,70	57	6	21	10	12,33
" 2†	860	26	42	60	102	6,75	4,44	11,19	1,50	1,70	1,60	56	31	32	33	32
" 3	865	33	30	60	90	6,88	5,00	11,88	1,50	1,70	1,60	53	28	35	29	3,67
" 4	875	28	42	55	97	6,50	5,56	12,06	1,50	1,70	1,60	57	25	28	21	24,67
Average daily weight.	862,60	27,80			93,40			10,49			1,65	55,80				22,20

*Fed on English Hay.
†Handful salt.

Ten pounds or 4 quarts of milk from the above trial yielded 10 ounces of butter.

EIGHTH TRIAL.

DORA.

DATE.	Live weight at 12 M.	Weight of Hay.	Weight of Corn Meal.	Water Morning.	Evening.	Total.	Milk Morning.	Evening.	Total.	Cream Morning.	Evening.	Average.	Manure.	Temperature. Morning 7 o'clock.	2 o'clock P. M.	Evening 9 o'clock.	Average
										Per cent.	Per cent.	Per cent.		ab'v	ab'v	ab'v	ab'v
1858.	lbs.	lbs.	lbs.	lbs.	lbs	lbs.	lbs.	lbs.	lbs.				lbs.	0	0	0	0
Feb'y. 5-7*	865	27	avg.			69			8,33			1,66	50,80				
" 8			2,75														
" 9	854	23	2,75	40	40	80	6,12	4,19	10,31	1,40	1,60	1,50	57	19	21	24	21,33
" 10	870	24	2,75	37	35	72	6,56	4,50	11,06	1,40	1,90	1,65	57	25	32	11	22,66
" 11†	876	24	2,75	23	37	60	6,50	4,25	10,75	1,60	1,60	1,60	61	1	5	0	2
" 12	876	24	2,75	38	40	78	5,63	4,12	9,75	1,80	1,80	1,80	56	0	15	9	8
" 13	880	24	2,75	35	40	75	6,06	4,38	10,44	1,70	1,90	1,80	58	1	13	9	7,66
Average daily w eight.	871,20	23,80	2,75			73			10,46			1,67	57,80				12,33

*Fed on English Hay.
†Handful salt.

Ten pounds or 4 quarts of milk from the above trial yielded 10 ounces of butter.

NORA.

DATE.	Live weight at 12 M.	Weight of Hay.	Weight of Corn Meal.	Water Morning.	Evening.	Total.	Milk Morning.	Evening.	Total.	Cream Morning.	Evening.	Average.	Manure.	Temperature. Morning 7 o'clock.	2 o'clock P. M.	Evening 9 o'clock.	Average
											Per cent.	Per cent.	lbs	ab'v	ab'v	ab'v	ab'v
1858.	lbs.	lbs.	lbs.	lbs.	lbs	lbs.	lbs.	lbs.	lbs.	lbs.				0	0	0	0
Feb'y. 5-7*	838	25	avg.			62			8,28			1,62	58				
" 8			2,75														
" 9	834	24	2,75	30	35	65	5,94	4,25	10,19	1,50	1,70	1,60	47	19	21	24	21,33
" 10	838	22	2,75	33	30	63	6,00	4,12	10,12	1,40	1,60	1,50	47	25	32	11	22,66
" 11†	838	22	2,75	38	37	75	6,06	4,31	10,37	1,60	1,60	1,60	55	1	5	0	2
" 12	836	24	2,75	23	38	61	6,62	3,94	10,56	1,60	1,70	1,65	58	0	15	9	8
" 13	836	24	2,75	25	40	65	6,50	3,81	10,31	1,70	1,70	1,70	58	1	13	9	7,66
Average daily weight.	836,40	23,20				65,80						1,61	53				12,33

*Fed on English Hay.
†Handful salt.

Ten pounds or 4 quarts of milk from the above trial yielded 10 ounces of butter.

FIRST TRIAL.

ROAN

Is two years old, April, 1857; 7-8 Ayrshire; dropped calf March 20th, 1857; is expected to come in July 29th, 1858.

Date.	Live weight at 12 M.	Weight of Hay.	Water Morning.	Evening.	Total.	Milk Morning.	Evening.	Total.	Cream Morning.	Evening.	Average	Manure.	Temperature. Morning 7 o'clock.	2 o'clock P. M.	Evening 9 o'clock	Average.
1858.	lbs.	lbs.	lbs.	lbs	lbs.	lbs.	lbs.	lbs.	Per cent.	Per cent.	Per cent.	lbs.	ab'v 0	ab'v 0	ab'v 0	ab'v 0
Feb'y 23*	750	24	40	36	76	3,19	2.37	5,56	2,30	2,20	2,25	38	5	12	6	7,66
" 24	756	22	18	36	54	3,31	2,81	6,12	2,00	2,90	1,95	42	6	23	17	15 33
" 25	764	25	23	38	61	3,25	3,00	6,25	1,80	2,00	1,90	43	22	32	22	25,33
" 26	754	22	20	45	65	3,19	3,00	6,19	1,90	2,00	1,95	51	20	30	20	23 ,33
" 27*	770	22	38	40	78	3,31	3,19	6,50	1,90	2,10	2,00	44	18	34	32	28
Average daily weight.	758,80	23			36,80			6,12			2,01	43				19,90

*Handful salt.

Ten pounds or 4 quarts of milk from the above trial yielded 12 ounces of butter.

SPOT

Is two years old, April 1857; 7-8 Ayrshire; dropped calf April 7th, 1857; is expected to come in July 29th, 1858.

Date.	Live weight at 12 M.	Weight of Hay.	Water Morning	Evening.	Total.	Milk Morning.	Evening.	Total.	Cream Morning.	Evening.	Average.	Manure.	Temperature. Morning 7 o'clock.	2 o'clock P. M.	Evening 9 o'clock	Average.
1858.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	Per cent	Per cent.	Per cent	Per cent.	lbs.	ab'v 0	ab'v 0	ab'v 0	ab'v 0
Feb'y 23*	792	24	40	44	84	3,50	3,44	5.94	1,20	1,30	1,25	37	5	12	6	7,66
" 24	800	22	17	40	57	2 44	3 50	6.94	1,00	1,50	1,25	40	6	23	17	15,33
" 25	798	25	20	35	55	3,31	3,31	6,62	1,20	1,30	1,25	44	22	32	22	25,33
" 26	808	22	40	35	75	3,50	3,31	6,81	1,30	1,30	1,30	43	20	30	20	23,33
" 27*	808	22	26	40	66	3,56	3,25	6,81	1,30	1,40	1,35	44	18	34	32	28,00
Average daily weight.	801,20	23			67,40			6,62			1,28	41,60				19,90

*Handful salt.

Ten pounds or 4 quarts of milk from the above trial yielded 8 ounces of butter.

SECOND TRIAL.

ROAN

DATE.	Live weight at 12 M.	Weight of Hay.	Weight of Eng. Tur'ps	Water Morning.	Evenin •	Total.	Milk Morning.	Evening.	Total.	Cream Morning.	Evening.	Average.	Manure.	Temperature. Morning 7 o'clock.	2 o'clock P. M.	Evening 9 o'clock.	Average.
1858.	lbs.	lbs.	lbs.	lbs.	lbs	lbs.	lbs.	lbs.	lbs.	Per cent.	Per cent.	Per cent.	lbs.	ab'v 0	ab'v 0	ab'v 0	ab'v 0
Feb'y 28*	759	23	15			66,80			6,12			2,01	43				
March 1†	770	25	15	40	50	90	3,31	2 69	6,00	2,00	2,10	2,05	50	35	36	32	34,33
" 2	766	25	15	00	50	50	3,62	3,31	6,93	2,20	2,30	2,25	60	22	23	13	19,33
" 3	780	24	15	20	40	60	3,56	3,00	6,56	2,20	2,30	2,2	60	4	12	11	9
" 4	790	26	15	25	30	55	3,44	2.87	6,31	2,30	2,30	2,3	62	5	14	5	8
" 5	790	24	15	00	60	60	3,94	3,06	7,00	2,30	2,30	2,30	60	03	7	4	2,66
Average daily weight.	779,20	24,80	15			63			6,56			2,23	58,40				14,66

*Fed on English Hay.
†Handful salt.

Ten pounds or 4 quarts of milk from the above trial yielded 13 ounces of butter.

SPOT

DATE.	Live weight at 12 M.	Weight of Hay.	Weight of Eng. Tur'ps	Water Morning.	Evening.	Total.	Milk Morning.	Evening.	Total.	Cream Morning.	Evening.	Average.	Manure.	Temperature. Morning 7 o'clock.	2 o'clock P. M.	Evening 9 o'clock.	Average
1858.	lbs.	lbs.	lbs.	lbs.	lbs	lbs.	lbs.	lbs.	lbs	Per cent.	Per cent.	Per cent.	lbs	ab'v 0	ab'v 0	ab'v 0	ab'v 0
Feb'y 28,*	802	24	15			67,40			6,62			1,28	41,60				
March 1†	813	25	15	40	46	86	3,62	3,25	6,87	1,00	1,10	1,05	48	35	36	32	34,33
" 2	794	25	15	00	55	55	4,25	3,12	7,37	1,40	1,30	1,35	58	22	23	13	19,33
" 3	820	24	15	20	40	60	4,12	3,50	7,62	1,40	1,40	1,40	57	4	12	11	9
" 4	828	26	15	20	39	59	4,25	3,44	7,69	1,40	1,40	1,40	58	5	14	5	8
" 5	815	24	15	00	60	60	4,25	3,31	7,56	1,40	1,40	1,40	58	03	7	4	2,66
Average daily weight.	814,00	24,80	15			64,00			7,42			1,32	55,80				14,66

*Fed on English Hay.
†Handful salt.

Ten pounds or 4 quarts of milk from the above trial yielded 8 ounces of butter.

THIRD TRIAL.

ROAN.

Date.	Live weight at 12 M.	Weight of Hay.	Weight of Ruta Bagas	Water Morning.	Evening.	Total.	Milk Morning.	Evening.	Total.	Cream Morning.	Evening.	Average.	Manure.	Temperature Morning 7 o'clock.	Temperature 2 o'clock P. M.	Temperature Evening 9 o'clock.	Temperature Average
1858.	lbs.	lbs	lbs.	lbs.	lbs	lbs.	lbs.	lbs.	lbs	Per cent	Per cent.	Per cent.	lbs.	ab'v	ab'v	ab'v	ab'v
March 6	790	25	15	20	40	60	3,50	3,19	6,69	2,10	2,20	2,15	70	0	0	0	0
" 7*	793	25	15	20	35	55	3.63	3,06	6,69	2,00	2,10	2.05	70	8	21	15	14.66
" 8	795	24	15	30	25	55	3,19	3.06	6 25	2,00	2,20	2.10	70	7	23	16	15.33
" 9	793	26	15	34	20	54	3.12	2,82	5,94	2.20	2,40	2,30	57	12	19	14	15 00
" 10	784	25	15	20	33	53	3,00	2,94	5,94	2,10	2,30	2,20	58	15	25	20	20,00
Average daily weight.	791	25	15			55,40			6,90			2,16	65				14,26

*Handful salt.

Ten pounds or 4 quarts of milk from the above trial yielded 12 ounces of butter.

SPOT.

Date.	Live weight at 12 M.	Weight of Hay.	Weight of Ruta Bagas.	Water Morning.	Evening.	Total.	Milk Morning.	Evening.	Total.	Cream Morning.	Evening.	Average.	Manure.	Temperature Morning 7 o'clock	Temperature 2 o'clock P. M.	Temperature Evening 9 o'clock.	Temperature Average
1858.	lbs.	lbs.	lbs.	lbs.	lbs	lbs.	lbs	lbs	lbs	Per cent	Per c nt	Per cent	lbs.	ab'v	ab'v	ab'v	ab'v
March 6	833	25	15	20	40	60	4.25	3.50	7.75	1,40	1 50	1,45	60	0	0	0	0
" 7*	826	25	15	15	45	60	4.31	3 69	8 00	1 40	1 50	1.45	62	02	12	9	6.33
" 8	827	24	15	25	27	52	3,81	3.50	7.31	1,00	1 40	1,20	64	8	21	15	14,66
" 9	813	25	15	20	33	53	3,62	3.44	7 06	1.20	1 30	1 25	56	7	23	16	15,33
" 10	815	24	15	15	39	54	3,56	3,19	6,75	1,20	1,30	1,25	56	12	19	14	15,00
Average daily weight.	822,80	24,60	15			55,80			7,37			1,22	59,60	15	25	20	20,00 14,26

*Handful salt.

Ten pounds or 4 quarts of milk from the above trial yielded 8 ounces of butter.

FOURTH TRIAL.

ROAN.

DATE.	Live weight at 12 M.	Weight of Hay.	Weight of Carrots.	Water Morning.	Evening.	Total.	Milk Morning.	Evening.	Total.	Cream Morning.	Evening.	Average.	Manure.	Temperature. Morning 7 o'clock.	2 o'clock P. M.	Evening 9 o'clock.	Average.
1858.	lbs.	lbs.	lbs.	lbs.	lbs	lbs.	lbs.	lbs.	lbs.	Per cent.	Per cent.	Per cent.	lbs.	ab'v 0	ab'v 0	ab'v 0	ab'v 0
Mar. 11	783	25	15	20	45	65	2,38	2 42	4,80	2,10	2.20	2,15	57	24	39	29	30,66
" 12*	795	23	15	35	40	75	3,00	2 44	5,44	2.10	2,20	2,15	60	16	26	25	22.33
" 13	799	24	15	33	34	67	3,00	3,19	6.19	2,00	2,10	2,05	62	16	26	22	21 33
" 14	800	24	15	29	40	69	3 00	3,12	6,12	2.10	2,10	2.10	62	26	35	34	31.66
" 15	787	26	15	40	30	70	3,31	2,88	6,19	2,00	2,10	2,05	60	36	43	34	37,66
Avge daily wt.	793,40	24,40	15			69,20			5,75			2,10	60,20				28.72

*Handful salt.

Ten pounds or 4 quarts of milk from the above trial yielded 12 ounces of butter.

SPOT.

DATE.	Live weight at 12 M.	Weight of Hay.	Weight of Carrots.	Water Morning	Evening.	Total.	Milk Morning.	Evening.	Total.	Cream Morning.	Evening.	Average.	Manure.	Temperature. Morning 7 o'clock.	2 o'clock P. M.	Evening 9 o'clock.	Average.
1858.	lbs.	lbs.	lbs.	lbs.	lbs	lbs.	lbs.	lbs.	lbs	Per cent.	Per cent.	Per cent.	lbs.	ab'v 0	ab'v 0	ab'v 0	ab'v 0
Mar. 11	836	25	15	36	40	76	3,69	3,06	6,75	1,10	1,20	1,15	54	24	39	29	30,66
" 12*	825	23	15	25	38	63	3,81	3,06	6,87	1,10	1,00	1,05	59	16	26	25	22.33
" 13	827	24	15	35	40	75	3,31	4,06	7.37	1,10	1,10	1,10	63	16	26	22	21,33
" 14	831	24	15	36	40	76	3 56	3,75	7,31	1,10	1,20	1,15	63	26	35	34	31,66
" 15	833	26	15	20	40	60	3,31	3,56	6,87	1,00	1,20	1,10	58	36	43	34	37,66
Avge. daily wt.	830,40	24,40	15			70			7,03			1,11	59,50				28,72

*Handful salt.

Ten pounds or 4 quarts of milk from the above trial yielded 7 ounces of butter.

FIFTH TRIAL.

ROAN.

Date.	Live weight at 12 M.	Weight of Hay.	Weight of horn carrots	Water Morning.	Evening.	Total.	Milk Morning.	Evening.	Total.	Cream Morning.	Evening.	Average.	Manure.	Temperature. Morning 7 o'clock.	2 o'clock P. M.	Evening 9 o'clock.	Average
1858.	lbs.	lbs.	lbs.	lbs.	lbs	lbs	lbs.	lbs.	lbs	Per cent.	Per cent.	Per cent.	lbs.	ab'v 0	ab'v 0	ab'v 0	ab'v 0
March 16	784	28	15	20	50	70	3,06	3,00	6,06	2,00	2,10	2,05	60	33	36	35	34,66
" 17	780	27	15	20	40	60	2,62	3,00	5,62	2,00	2,10	2,05	55	40	56	49	48,33
" 18*	776	27	15	15	40	55	2,57	3,44	5,81	2,00	2,10	2,05	58	46	47	40	44,33
" 19	780	27	15	20	40	60	2,75	3,00	5,75	2,00	2,30	2,15	60	35	38	31	34,66
" 20	780	27	15	20	40	60	2,69	3,00	5,69	2,00	2,30	2,15	60	32	38	31	33,66
Average daily weight.	780	27,20	15			61			5,78			2,09	38,60				39,12

*Handful salt.

Ten pounds or 4 quarts of milk from the above trial yielded 12 ounces of butter.

SPOT.

Date.	Live weight at 12 M.	Weight of Hay.	Weight of horn carrots	Water Morning.	Evening.	Total.	Milk Morning.	Evening.	Total.	Cream Morning.	Evening.	Average.	Manure.	Temperature. Morning 7 o'clock.	2 o'clock P. M.	Evening 9 o'clock.	Average
1858.	lbs.	lbs.	lbs.	lbs.	lbs	lbs.	lbs.	lbs.	lbs.	Per cent.	Per cent.	Per cent.	lbs.	ab'v 0	ab'v 0	ab'v 0	ab'v 0
March 16	823	28	15	20	40	60	3,56	3,31	6,87	1,00	1,10	1,05	58	33	36	35	34,66
" 17	830	27	15	30	30	60	3,50	3,25	6,75	1,00	1,10	1,05	64	40	56	49	48,33
" 18*	832	27	15	20	40	60	3,31	3,62	6,93	1,00	1,20	1,10	58	46	47	40	44,33
" 19	830	27	15	35	30	65	3,44	3,50	6,94	1,00	1,10	1,05	61	35	38	31	34,66
" 20	830	27	15	20	40	60	3,50	3,56	7,06	1,00	1,10	1,05	61	32	38	31	3,36
Average daily weight.	829	27,20	15			61			6,91			1,06	60,40				39,12

*Handful salt.

Ten pounds or 4 quarts of milk from the above trial yielded 7 ounces of butter.

SIXTH TRIAL.

ROAN.

DATE.	Live weight at 12 M.	Weight of Clover Hay, 2d crop.	Water Morning.	Water Evening.	Water Total.	Milk Morning.	Milk Evening.	Milk Total.	Cream Morning.	Cream Evening.	Cream Average.	Manure.	Temperature. Morning 7 o'clock.	Temperature. 2 o'clock P. M.	Temperature. Evening 9 o'clock.	Temperature. Average.
1858.	lbs.	lbs.	lbs.	lbs	lbs.	lbs.	lbs.	lbs.	Per cent.	Per cent.	Per cent.	lbs.	ab'v 0	ab'v 0	ab'v 0	ab'v 0
Mar. 20-3*	780	27,20	ave.		61			5,78			2,09	58,60				
" 24	790	22	40	20	60	2,06	2,50	4,56	1,80	2,60	2,20	52	24	37	30	30,33
" 25	790	30	45	40	85	2,69	2,44	5,13	2,40	2,40	2,40	45	24	43	37	34,66
" 26†	784	27	45	60	105,	2,56	2,81	5,37	2,40	2,40	2,40	51	27	26	28	27
" 27	783	28	37	40	77	2,87	3,13	6,00	2,50	2,20	2,35	51	24	41	33	32,66
" 28	782	28	36	49	85	3,06	2,88	5,94	2,20	2,40	2,30	49	33	48	41	40,66
Average daily weight.	783,80	27			82,40			5,55			2,33	49,60				33,26

*Fed on English Hay.

†Handful salt.

Ten pounds or 4 quarts of milk from the above trial yielded 14 ounces of butter.

SPOT.

DATE.	Live weight at 12 M.	Weight of Clover Hay, 2 crops.	Water Morning.	Water Evening.	Water Total.	Milk Morning.	Milk Evening.	Milk Total.	Cream Morning.	Cream Evening.	Cream Average.	Manure.	Temperature. Morning 7 o'clock.	Temperature. 2 o'clock P. M.	Temperature. Evening 9 o'clock.	Temperature. Average.
1858.	lbs.	lbs.	lbs.	lbs	lbs.	lbs.	lbs.	lbs.	Per cent.	Per cent.	Per cent.	lbs	ab'v 0	ab'v 0	ab'v 0	ab'v 0
Mar. 20-3*	829	27,20	ave.					6,91			1,06	60,50				
" 24	810	22	40	38	78	2,94	3,06	6,00	1,30	1,90	1,60	42	24	37	30	30,33
" 25	811	30	40	59	99	3,31	3,37	6,68	1,50	1,50	1,50	40	24	43	37	34,66
" 26†	807	27	35	40	75	3,88	3,75	7,63	1,50	1,50	1,50	53	27	26	28	27
" 27	815	28	40	55	95	3,94	4,25	8,19	1,50	1,50	1,50	46	24	41	33	32,66
" 28	825	28	40	55	95	4,25	4,38	8,63	1,40	1,50	1,50	47	33	48	41	40,66
Average daily weight.	813,60	27			88,40			7,43			1,52	45,60				33,26

*Fed on English Hay.

†Handful salt.

Ten pounds or 4 quarts of milk from the above trial yielded 9 ounces of butter.

SEVENTH TRIAL.

ROAN.

Date.	Live weight at 12 M.	Weight of Hay.	Weight of Corn Meal.	Water Morning.	Evening.	Total.	Milk Morning.	Evening.	Total.	Cream Morning.	Evening.	Average.	Manure.	Temperature. Morning 7 o'clock.	2 o'clock P. M.	Evening 9 o'clock.	Average
1858.	lbs.	lbs.	lbs. avg.	lbs.	lbs	lbs	lbs.	lbs.	lbs.	Per cent.	Per cent.	Per cent.	lbs.	ab'v 0	ab'v 0	ab'v 0	ab'v 0
Mar. 29 to April 1*	785,80	27				82,50			5,50			2,33	49,60				
" 2†	775	25	2,75	40	42	82	1,69	1,94	3,63	2,00	1,80	1,90	40	37	54	41	44
" 3	782	26	2,75	40	27	67	2,00	2,06	4,06	2,00	2,10	2,05	50	45	66	42	51
" 4	775	23	2,75	30	26	56	2,00	2,25	4,25	2,00	2,10	2,05	48	42	58	40	46,66
" 5	789	25	2,75	22	15	37	2,25	2,62	4,87	2,00	2,20	2,10	59	41	59	43	47,66
" 6	765	25	2,75	12	40	52	2,25	2,44	4,69	2,10	2,20	2,15	57	42	53	31	42
Average daily weight.	777,20	24,80	2,57			58,80			4,30			2,05	50,80				46,26

*Fed on English Hay.

†Handful salt.

Ten pounds or 4 quarts of milk from the above trial yielded 12 ounces of butter.

SPOT.

Date.	Live weight at 12 M.	Weight of Hay.	Weight of Corn Meal.	Water Morning.	Evening.	Total.	Milk Morning.	Evening.	Total.	Cream Morning.	Evening.	Average.	Manure.	Temperature. Morning 7 o'clock.	2 o'clock P. M.	Evening 9 o'clock.	Average
1858.	lbs.	lbs.	lbs. avg.	lbs.	lbs	lbs.	lbs.	lbs.	lbs.	Per cent.	Per cent.	Per cent.	lbs.	ab'v 0	ab'v 0	ab'v 0	ab'v 0
Mar. 29 to April 1*	813,60	27				88,40			6,91				152	45,60			
March 2†	809	25	2,75	40	45	85	2,88	2,62	5,50	1,10	1,10	1,10	42	37	54	41	44
" 3	803	26	2,75	20	34	54	3,00	3,06	6,06	1,10	1,20	1,15	43	45	66	42	51
" 4	820	23	2,75	25	30	55	2,75	3,50	6,25	1,20	1,20	1,20	42	42	58	40	46,66
" 5	810	25	2,75	35	33	68	3,12	3,56	6,68	1,20	1,20	1,20	61	41	59	43	47,66
" 6	815	25	2,75	28	34	62	3,44	3,25	6,69	1,20	1,30	1,25	60	42	53	31	42
Average daily weight.	810,80	24,80	2,75			64,80			6,23			1,18	49,60				46,26

*Fed on English Hay.

†Handful salt.

Ten pounds or 4 quarts of milk from the above trial yielded 7 ounces of butter.

EIGHTH TRIAL.

ROAN.

DATE.	Live weight at 12 M.	Weight of Hay.	Weight of Cotton Seed	Water Morning.	Evening.	Total.	Milk Morning.	Evening.	Total.	Cream Morning.	Evening.	Average.	Manure.	Temperature. Morning 7 o'clock.	2 o'clock P. M.	Evening 9 o'clock.	Average.
1858.	lbs.	lbs.	lbs.	lbs.	lbs	lbs.	lbs.	lbs.	lbs.	Per cent.	Per cent.	Per cent.	lbs.	ab'v 0	ab'v 0	ab'v 0	ab'v 0
April 7-8*	777,20	24,80	ave.			58,80			4,30			2,05	50,80				
" 9†	770	25	2,75	48	28	76	2,00	2,50	4,50	2,00	2,00	2,00	61	38	51	42	44
" 10	770	24	2,75	40	25	65	2,69	2,43	5,12	2,00	2,10	2,05	48	40	50	32	42,66
" 11	765	24	2,75	40	24	64	2,62	2,88	5,50	2,10	2,30	2,20	46	34	46	40	40
" 12	766	25	2,75	40	27	67	2,94	3,12	6,06	2,30	2,40	2,35	48	32	50	40	40,66
" 13	771	25	2,75	45	32	77	3,06	3,88	6,44	2,30	2,40	2,35	48	32	40	35	35,66
Average daily weight.	768,60	24,60				69,80			5,52			2,19	50,20				40,59

*Fed on English Hay.

†Handful salt.

Ten pounds or 4 quarts of milk from the above trial yielded 13 ounces of butter.

SPOT.

DATE.	Live weight at 12 M.	Weight of Hay.	Weight of Cotton Seed	Water Morning.	Evening.	Total.	Milk Morning.	Evening.	Total.	Cream Morning.	Evening.	Average.	Manure.	Temperature. Morning 7 o'clock.	2 o'clock P. M.	Evening 9 o'clock.	Average.
1858.	lbs.	lbs.	lbs.	lbs.	lbs	lbs.	lbs.	lbs.	lbs.	Per cent.	Per cent.	Per cent.	lbs.	ab'v 0	ab'v 0	ab'v 0	ab'v 0
April 7-8*	810,80	24,80	avg.	ave.		64,80			6,23			1,18	49,60				
" 9†	830	25	2,75	49	25	74	3,19	3,50	6,69	1,40	1,50	1,45	53	38	51	43	44
" 10	830	26	2,75	50	20	70	3,31	3,44	6,75	1,50	1,60	1,55	51	40	50	32	42,66
" 11	820	24	2,75	40	45	85	3,62	3,88	7,50	1,50	1,60	1,55	53	34	46	40	40
" 12	820	25	2,75	40	30	70	3,94	3,88	7,83	1,60	1,70	1,65	50	32	50	40	40,66
" 13	827	25	2,75	44	25	69	4,25	4,31	8,56	1,60	1,70	1,65	48	32	40	35	35,66
Average daily weight.	825,40	25	2,75			73,60			7,46			1,57	51				40,59

*Fed on English Hay.

†Handful salt.

Ten pounds or 4 quarts of milk from the above trial yielded 9 ounces of butter.

JOHN BROOKS, JR'S. STATEMENT.*

POTATOES.

The lot on which my experiment potatoes grew, I supposed to have contained one acre, but it was found by measurment to contain only 139 rods. The soil is light and gravelly. The crop of 1856–7 was grass without manure. Plowed May 25th, with a double plow, about 8 inches deep, harrowed and furrowed. Cost of plowing and other preparations, $6,00. Manured with 15 loads horse manure, spread before plowing, and 300 lbs. guano mixed with one load of muck, one handful in each hill, value of manure $15,00, guauo $9,00, total $24,00. Planted June 8th to 10th, in hills 2½ by 3½ feet apart. Seed 12 bushels St. Helena potatoes, worth $6,00; cost of planting $4,50, hoed twice, cost $8,00; harvested Oct. 2d and 4th; yield 71 1-3 lbs. per square rod. The potatoes raised are very nice ones, and do not rot in the least. I have sold four barrels for $1,0 0 per bushel, and have an order for from two to ten barrels more.

ABEL MARSHALL'S STATEMENT.

POTATOES.

The acre upon which my crop of potatoes for experiment was raised, is a variable soil; part of it a light yellow loam, with a loose subsoil, and part of it a heavy, dark loam, with a clayey bottom. It has been in grass, without manure, for twenty years previous to

*The statements concerning cultivated crops are made by the Secretary from the returns of the blank forms sent to the several competitors.

the present. Was plowed April 19th, with a double Michigan plow, about ten inches deep; harrowed once lengthways of the furrows, and furrowed one way; rows 3 feet 4 inches apart; hills 2 feet apart; cost of plowing and other preparations, $6,00. It was manured with 14 loads of green stable manure, spread before harrowing, and six loads loam from under an old leanto, put in the hill; value of manure upon the land, $17,00; it was planted April 24th and 29th, in ten lots, the first nine of which contained five rows each, 9 rods in length.

No. 1, two whole potatoes size of a hen's egg per hill.
No. 2, one whole potatoe, good size to cook per hill.
No. 3, two halves of large potatoes per hill.
No. 4, two small potatoes per hill to be thinned.
No. 5, one whole potatoe per hill to be thinned.
No. 6, two halves per hill to be thinned.
No. 7, three pieces, one eye each per hill.
No. 8, two pieces root end per hill.
No. 9, two pieces seed end per hill.

All the above were improved peach blows.

No. 10 embraced the remainder of the field, and was planted, partly with early white and partly with small peach blow potatoes, the yield of which was not very satisfactory.

Seed, ten bushels, worth $7,00; cost of planting $2,50; harrowed between rows twice; hoed once; plowed with a double mould-board plow once; cost of cultivation $2,50; harvested Nov. 1st to 10th.

No. 1, produced 8 1-2 bushels medium size.
No. 2, produced 9 1-2 bushels large size.
No. 3, produced 11 bushels extra large size.

No. 4, produced 10 1-2 bushels rather small size.
No. 5, produced 8 1-2 bushels medium size.
No. 6, produced 8 1-2 bushels medium size.
No. 7, produced 5 1-2 bushels small size.
No. 8, produced 8 5-8 bushels extra large size.
No. 9, produced 8 1-8 bushels large size.

ESSAY

The Committee on Essays have attended to their duty, and regret to report that there has been but one offered for the Society's premium, and that, although meritorious, is not equal to what we would wish to have published as a prize Essay. This, with the absence of competition, has induced us to withhold the premium, and recommend that the Secretary be directed to return the manuscript to its author.

JOHN BROOKS, *Chairman.*

MECHANICS AND MANUFACTURED ARTICLES.

The Committee on Mechanics and Manufactured articles submit the following report.

The display of mechanical and manufactured articles was not so large as on previous exhibitions. Of nearly one half the departments to which premiums were assigned for distribution, no specimens were presented. This deficiency was undoubtedly partly owing to a want of room for the proper disposal of the bulkier articles.

Of the specimens exhibited, many displayed a highly creditable degree of taste and ingenuity. Many articles, too, were presented, which though not coming under the prescribed departments, were thought worthy of notice, and gratuities, and a considerable list of them will be found among the awards of the Committee.

It would be impossible to notice in a report necessarily so brief as the present, all the articles deserving of particular mention, or do more than call attention to a few of the more prominent.

Chiefly among these, we would notice the "Ventilating Stove and Furnace" patented by our townsman, Mr. C. B. Sawyer; and to which we have assigned a gratuity of three dollars. It claims to combine extraordinary heating capacity and economy of fuel, with thorough ventilation, and equal distribution of heat, and in the judgment of your Committee, based upon a necessarily somewhat brief examination, the claim is well sustained. The ventilation is supplied by the introduction of pure air from out doors, while by the happy innovation of placing the ventilating registers in the

floor, instead of the ceiling, and causing the air of the room to pass out through the chimney of the furnace, a great saving of heat is secured—an equable temperature diffused—and the power of tempering and regulating the whole to any degree desired perfectly attained. It may also by the attachment of a cheap fixture, be made to serve the purpose of a ventilator in the summer, when it may become necessary to close the doors and windows to exclude light and dust. It also possesses the additional merit of securing, by the constant and steady current of air over the radiators the preservation of the healthy and vitalizing properties of the atmosphere, while the air is rendered pure throughout, and is of equal temperature at the floor and ceiling.

Another recent innovation worthy of notice, but not received in sufficient season to be the subject of a gratuity, is "Winship's Self Ventilating Refrigerator," exhibited by Messrs. A. J. Spooner & Co. Based upon the principle of the condensation of air by cold, a thorough ventilation is secured by a mode as simple as admirable. The fresh air from without is admitted to the ice chamber, and is there condensed and passes to the meat chamber and thence out through its appropriate register, so that a constant current from above downward is secured. The advantages of this method of ventilation, both in point of cleanliness, and the preservation of articles of food placed within it, are too obvious to require comment. Each article of food can preserve its own appropriate flavor without partaking of those which preceded it.

The elegant dental workmanship of Messrs. Palmer

& Brown, to the merits of which most of our citizens "out of their own mouths can bear testimony," claimed the admiration of the Committee, who awarded them a gratuity.

The excellent daguerreotypes of J. C. Moulton, were also highly deserving of notice.

There were several specimens of juvenile ingenuity exhibited, and among them, a miniature locomotive and tender, manufactured with a knife, by Charles E. Fitch, which gave promise of a high degree of mechanical excellence in the future.

Among other articles, a clothes frame, invented by our fellow townsman, Mr. Dexter Henshaw, deserves notice for its simplicity, cheapness and convenience. When folded it occupies so little space, and it is in every way so well adapted to the chamber and nursery that it cannot fail of a general introduction into use.

Messrs. Daniel R. Haynes & Co., of Leominster, exhibited a Piano from their manufactory, which for elasticity of action, purity and evenness of tone, and finish and beauty of case, richly deserves the gratuity which was awarded it.

The cloths displayed by the Fitchburg Woolen Mill, well sustained the high reputation they have so long possessed.

The show of boots and shoes was very good.

The paper hangings of Messrs. Lowe & Proctor, were of admirable quality and finish, and the copper works of Z. P. Spaulding were well and thoroughly executed.

A work-box by Milo Whitney, elegantly inlaid with more than three thousand pieces, attracted the attention of the Committee by its workmanship and artistic finish.

Taken as a whole, the display of mechanical and manufactured articles, though much smaller than, for the credit of the many and excellent mechanics of Fitchburg we could wish, was as far as it went, highly deserving of praise.

We would close our report by urgently recommending, that in the future a definite and sufficient space be assigned for the exhibition of articles of this department. With the many enterprising and ingenious mechanics which the North of Worcester possesses, her display of manufactured articles should be one of the most interesting and instructive of the whole. And that such a display will be made in the future, we have no reason to doubt, if an opportunity be given for it.

The Committee award the following premiums and gratuities:

To Waldo Wallace, straw cutter,	$1,00
To Waldo Wallace, six hay rakes,	,50
To Waldo Wallace, one churn,	1,00
To S. G. Frost, best harness,	1,00
To J. L. Tenney, best thick boots,	1,00
To J. L. Tenney, best thin boots,	1,00
To J. L. Tenney, best ladies' shoes,	1,00
To Asa Partridge, best thin boots, gratuity,	,50
To Wm. E. Arnold, best edge tools,	1,00
To Wm. Woodbury, best wooden ware,	1,00
To Lowe & Proctor, best paper hangings, gratuity,	1,00
To Fitchburg Woolen Mill, best broadcloth and cassimeres,	2,00
To Simonds & Follet, best calf skins,	1,00
To Putnam & Phelps, best split leather, gratuity,	,50

To Mrs. Betsy Lewis, Sterling, hearth rug, ,33
To Miss Martha Beaman, hearth rug, ,67
To Miss Ruth Stanley, woolen socks, ,50
To Miss Martha Beaman, socks knit by a child, ,50
To Mrs. B. M. Harris, specimen of darning socks, ,35

GRATUITIES.

To Palmer Brown, dentistry, $1,00
To D. A. Proctor, boots and shoes, 1,00
To Henry P. Webber, bird cage, ,50
To Brown, Allen & Co., piano forte, 2,00
To Streeter & Ross, box weaving reeds, ,50
To David Lawrence, woolen frocking, ,50
To Mrs. James Clark, rag carpet, ,50
To Miss Ellen L. Smith, rag carpet, ,50
To C. A. Emory, case of hats and caps, 1,00
To Dexter Henshaw, clothes horse, ,50
To Milo Whitney, work box, 1,00
To Z. P. Spaulding, copper pumps and boilers. 1,00
To J. C. Moulton, daguerreotypes, 3,00
To S. P. Burpee, baby wagon, ,50
To F. W. & R. A. Whitney. baby wagon, ,50
To Charles E. Fitch, miniature engine, ,50
To Putnam & Phelps, patent leather, 1,00
To Waldo Wallace, plows, ,50
To C. B. Sawyer, stoves and ventilating apparatus, 3,00
To Miss Elvira F. Dodge, paper boxes, ,50
To Thomas Trees, bellows beds, ,50

C. H. B. SNOW, *Chairman.*

VEGETABLES.

The Committee on vegetables, although they were obliged to depend in some measure on their outward senses to aid them in the performance of their duty, have been governed, not so much by the size and beauty of the various specimens exhibited, as by their rarity and usefulness. Although a squash weighing from 50 to 100 pounds, may excite our admiration by its huge and well developed proportions, we think when compared with the genuine marrow, Canada crookneck, or rough looking Hubbard, well cooked, and properly seasoned, the nerve of the palate would not be long in determining the question of preference. The whole number of contributors of this class of vegetables, was twenty-five. Of this number there were five of the marrow, two of the crookneck, and three of the Hubbard. All the remaining specimens, with the exception of a few custard and Valparaiso, were either more or less mixed, or of a mammoth variety of very little value for the table. It is to be regretted that so large a portion of this valuable vegetable, was of this inferior variety. The display of potatoes was quite large, there being twenty-five contributors exhibiting from one to twelve varieties each, and judging from their external appearance, they were generally of a very good quality. The collection of kitchen vegetables presented by J. M. Sawtell and Jabez Fisher, contained a very large variety of valuable and well selected specimens, the remembrance of which should stimulate others to "go and do likewise."

In conclusion, with the exception above stated, we

think the vegetable department has been better represented the present year, than at any former exhibition of the Society; and although there is yet room for a decided improvement, both in the variety and quality of many specimens here exhibited, still the progress is onward.

Our awards are as follows:

KITCHEN VEGETABLES.

To J. M. Sawtell, of Fitchburg, first premium of $3,00
To Jabez Fisher, of Fitchburg, second premium of 2,00

POTATOES.

To Lorriston Stockwell, of Fitchburg, ten varieties, first premium, 2,00
To W. W. Watson, of Princeton, second premium 1,00
To Ephraim Graham, of Lunenburg, third premium, ,50

MARROW SQUASHES.

To Benj. F. Proctor, of Fitchburg, for the best six, 1,00

PUMPKINS.

To Benj. F. Proctor, of Fitchburg, for the best six, ,75

CABBAGES.

To Lawrin Pratt, of Fitchburg, for six best heads, first premium, ,75
To Charles A. Longley, of Shirley, second premium, ,50

CAULIFLOWER.

To Levi Kendall, of Fitchburg, three best specimens, ,75

CELERY.

To Walter Heywood, of Fitchburg, for best six stocks, ,75

ONIONS.

To Lawrin Pratt, of Fitchburg, best peck of onions, first premium, ,75

To Charles A. Longley, of Shirley, second premium, ,50

TURNIP BEETS.

To Abel Thurston, of Fitchburg, first premium, ,75

To Levi Kendall, of Fitchburg, second premium, ,50

ENGLISH TURNIPS.

To John Minott, of Westminster, for best peck, first premium, ,50

To Jaco b Haskell, of Fitchburg, second premium, ,25

TOMATOES.

To Adonijah Barnes, of Westminster, for best peck, first premium, ,50

To Levi Kendall, of Fitchburg, second premium, ,25

FIELD BEANS.

To David Battles, of Fitchburg, first premium, ,50

To Samuel Farwell, 2d, of Fitchburg, second premium, ,25

LIMA BEANS.

To John W. Hollis, of Fitchburg, best two quarts, ,50

SEED CORN.

To Samuel Farwell, 2d, of Fitchburg, best collection, first premium, 1,00

To J. M. Sawtelle, of Fitchburg, second premium, ,75

To Jabez Fisher, of Fitchburg, third premium, ,50

GRATUITIES.

To John Flynn, for best squash,	$0,50
To Abel Marshall, for best seed corn,	,50
To Abel Marshall, vegetables,	,50
To Alvah Crocker, marrow squashes,	,37
To Levi Kendall, custard squashes,	,37
To B. Snow, Jr. squashes,	,50
To Charles A. Emery, squashes,	,20
To Mrs. Francis Russell, marrow squashes,	,37
To Alonzo P. Goodridge, marrow squashes,	,20
To T. R. Boutelle, 10 squashes,	,50
To H. L Reed, 3 squashes,	,20
To Albert B. Damon, potatoes,	,20
To David B. Dole, pop corn,	,10
To John Brooks, Jr., potatoes,	,37
To Thomas Stearns, potatoes and vegetables,	,50
To W. B. Hosmer, sweet potatoes,	,20
To Edward Maley, water melons,	,20
To Charles, H. Colburn, Hubbard squashes,	,20
To Benjamin Safford, seed corn,	,50
To Benj. Safford, tomatoes and onions, 20 cts. each,	,50
To William Murnane, 6 cabbages,	,20
To Franklin Nourse, seed corn,	,20
To Walter Heywood, Hubbard squashes,	,20
To Walter Heywood, onions,	,20
To E. A. Harris, potatoes,	,37
To J. A. Marshall, field beans,	,20
To Samuel Farwell, 2d, French turnips,	,20
To Lawrin Pratt, seed corn,	,20
To Joel Page, seed cucumbers,	,10
To James McIntire, 2 baskets potatoes,	,20
To John W. Hollis, 2 baskets potatoes,	,30

CYRUS THURSTON, *Chairman.*

BREAD, BUTTER, CHEESE, &C.

The Committee on Bread, Butter, Cheese, Honey and Pickles, report as follows :

No Committee has a more important duty to fulfill than the one which has to decide upon the above named articles, they most of them, being the most important ones which enter into the consumption of daily living. And the contributors were very fortunate in having for their inspectors, gentlemen and ladies, so well qualified to judge upon their productions, so excellent, and so near perfection as most of them were. Bread, the first of household productions, is eminently the staff of life, and it is an old maxim, that the maiden who cannot make a good loaf, is not fit to become the head of a family, although so many do assume it without this necessary and very important qualification. Doubtless this happens in most cases, because there is no examination before entering upon the all important duties of life. The bread which was submitted to our inspection, under the rules of the Society, was made by quite young misses, most of them still under the tuition of their mothers, and of course still making progress in the important art. And your Committee would most earnestly recommend them to make themselves as near perfect, in this most important accomplishment, as they can. There was a great variety of the different kinds of bread, and it was very creditable to the makers, although it was not all pronounced perfect. Some of it which looked very nice, could not be examined because it was not sufciently cold, it being still warm from the oven, consequently not coming within the rules.

But it was the butter, which brought forth the applause of the Committee, and which tried their tastes and judgments to the utmost, looking so rich, clean and golden, and at the same time tasting and smelling so sweet and rich. No article of the kind, could be produced, which could reflect more credit upon the producers, and at the same time so try the judgment, taste, and conscience of a Committee, by its similarity of excellence, as the numerous samples produced at the show of Worcester North. As all the statements of the various makers, did not come into our hands, we cannot judge of methods pursued, but must suppose from the facts produced, that they all practiced the very best now known. It is truly most encouraging to witness the great improvement in this branch of husbandry, and we wish all would furnish themselves with one of Mr. Flint's books on dairy matters, in order that they may learn to make more profit from their labors, if they cannot produce a better article.

The samples of cheese were not numerous, there being only three and all from one dairy, and although not esteemed the very best, were pronounced good, and the wish was uttered that much more of like quality might be was produced in the North part of Worcester County.

Honey the most delicious was offered, and it excited wonder, that more was not produced, when it could be done so cheaply, and with so little labor.

Pickles and preserves of various kinds in profusion adorned the tables, enough certainly to test the skill of the ladies and tempt the appetites of all who love and enjoy the luxuries as well as the essentials of life.

We have enumerated all the articles which came under our observation, and upon which judgment of good, better, and best was to be pronounced, and it must be done. Grades must be assigned, however difficult the task, even to those who knew well how to manufacture the very kind of articles under consideration in all their varieties. And we have done it, and submit the result of our deliberations most respectfully in the hope, that although all may not be gratified entirely, they may be induced to greater exertions, in order, not to procure the highest premiums in money, but the name of manufacturing the best of productions. And we wish these might be esteemed *the* accomplishments of ladies, in preference to those more showy but less useful; and that the term Hon. be assigned to the man who succeeds best in his avocation instead of to him who by the hocus-pocus of a caucus, becomes a maker of laws, largely to be disregarded by the community, and broken and trampled upon by himself.

The following premiums are awarded:

WHEAT BREAD.

First premium to Miss Mary E. Smith,	$1,00
Second premium to Sarah G. Bacon,	,50
First premium to Miss Aurelia Kendall, best unbolted wheat bread,	1,00

RYE BREAD.

First premium to Miss Aurelia Kendall, for best bolted rye bread,	1,00
Second premium to Kate Adams, for second best bolted rye bread,	,50

RYE AND INDIAN BREAD.

First premium to Alice J. Wellington,	$1,00
Second premium to Miss Aurelia Kendall,	,50

BUTTER—LUMP.

First premium to Nathan B. Reed,	4,00
Second premium to Mrs. J. B. Fairbanks,	3,00
Third premium to S. M. Caswell,	2,00
Fourth premium to Elisha G. Mirick,	1,50
Fifth premium to Franklin Nourse,	1,00
A gratuity to W. A. Crehore, of	1,00

TUB BUTTER.

First premium, to R. G. Chesmore,	3,00
Second premium to J. B. Fairbanks,	2,00

CHEESE.

First premium to George Miles,	2,00

HONEY.

First premium to Thomas Palmer,	1,00
Second premium to James McIntire,	,50
Gratuity to Benjamin Safford,	,50

PRESERVES.

First premium to Mrs. E. E. Boyden	,50
Second premium to Mrs. Lizzy White,	,25

PICKLES.

First premium to Miss Caroline M. Stearns,	,75
Second premium to Mrs. Josiah Pierce,	,50

EZRA KENDALL, *Chairman.*

S. M. CASWELL'S STATEMENT.

BUTTER.

The process by which our butter is made, is very plain and simple. The milk is strained into tin pans, filling them about half full. When the weather is cool the pans are set in a milk-room on racks instead of shelves,—when it is warm they are set in the cellar on the ground, where it usually remains from thirty six to forty-eight hours, according to the temperature of the weather, *especial care being taken not to have the cream remain on the milk after it begins to sour.* When the cream is taken off it is put in tin pails, and kept in the cellar when the weather is warm, being frequently well stired, until it is churned, which is usually once in two or three days; after it is churned and the buttermilk is worked out it is salted with about one ounce of salt to a pound of butter. It is then set in the cellar where it remains until the next day, when it is again well worked over and lumped for the market.

FRANKLIN NOURSE'S STATEMENT.

BUTTER.

I offer for premium one box of September butter, 22 pounds.

The process of making is as follows: After the milk is drawn from the cow, it is strained in tin pans and set in a well ventilated milk room, (nothing else being allowed in it) upon slats one foot apart, instead of board

shelves. After setting about thirty six hours, (varying according to temperature,) the cream is taken off and put into stone pots, and stired once a day. I churn with a rotary churn once a week; after which the butter is taken out, worked, and salted with one ounce to the pound, and lumped the following day. At the last working is added 2 ounces of sugar to 12 pounds of butter.

R. G. CHESMORE'S STATEMENT.

BUTTER.

The butter which I offer for premium was made in the following manner: The milk is strained into tin pans and set in a cool cellar for forty-eight hours; it is then skimmed, and the cream churned once a week. When churned, the butter is thoroughly worked and salted to taste; after the salt is dissolved, it is again worked and then packed.

FRUITS AND FLOWERS.

The Committee on Fruits and Flowers make the following awards:

APPLES.

For the best and largest exhibition of named varieties, of three specimens each, first premium to Benjamin Snow, Jr., of Fitchburg, $4,00

Second best, of three specimens each, second premium, to Moses Wood, of Fitchburg, 2,00

For the best twelve varieties, of five specimens each, to Moses M. Gage, of Fitchburg, 3,00

Second best twelve varieties, of five specimens each, second premium, to Ezra Kendall, of Sterling, 2,00

Third best twelve varieties, of five specimens each, third premium to J. A. Marshall, of Fitchburg, 1,00

For the best six varieties, of five specimens each, first premium to Charles H. Colburn, of Leominster, 2,00

Second best six varieties, of five specimens each, second premium to George G. Sampson, of Fitchburg, 1,50

Third best six varieties, of five specimens each, third premium to T. R. Boutelle, of Fitchburg, 1,00

For the best three varieties, of ten specimens each, first premium to Benjamin Safford, of Fitchburg, 1,50

Second best three varieties, of ten specimens each, second premium to Walter Heywood, of Fitchburg, 1,00

Third best three varieties of ten specimens each, third premium to Ephraim Graham, of Lunenburg, ,50

For the best dish or basket of any variety, first premium to Waldo Wallace, of Fitchburg, 1,50

Second best dish or basket of any variety, second premium to Addison Hubbard, of Fitchburg, 1,00

Gratuity to Enoch Caldwell, of Fitchburg, 1,00

PEARS.

For the best and largest exhibition of named varieties, of three specimens each, to Jabez Fisher, of Fitchburg, $4,00

Second best, of three specimens each, second premium to William G. Wyman, of Fitchburg, 2,00

For the best twelve varieties, of five specimens each, first premium to Benjamin Snow, Jr., of Fitchburg, 3,00

Second best, of five specimens each, second premium to J. P. Cutting, of Templeton, 2,00

Third best, of five specimens each, third premium to Moses Wood, of Fitchburg, 1,00

For the best six varieties, of five specimens each, first premium to Walter Heywood, of Fitchburg, 2,00

Second best, of six specimens each, second premium to C. C. Field, of Leominster, 1,50

For the best three varieties, of ten specimens each, first premium to T. R. Boutelle, of Fitchburg, 1,50

Second best, of ten specimens each, second premium to J. A. Marshall, of Fitchburg, 1,00

Third best, of ten specimens each, third premium to Benjamin Safford, of Fitchburg, ,50

Second best, second premium to John Hollis, of Fitchburg, 2,00
For the best dish or basket of any variety, first premium to John M. Twitchell, of Fitchburg, 1,50
Second best dish or basket of any variety, second premium to Charles H. Colburn, of Leominster, 1,00
Gratuity to Patrick Doulin, of Fitchburg, ,50
Gratuity to H. F. Coggshall, " ,50

PEACHES.

For the best collection, to B. Snow, Jr., of Fitchburg, $3,00
For the best dish or basket, first premium to Levi Kendall, of Fitchburg, 2,00
Second best, second premium to Walter Heywood, of Fitchburg, 1,00
Third best, third premium to Sumner Hale, of Fitchburg, ,50
Gratuity to Jabez Fisher, of Fitchburg, ,50

QUINCES.

For the best dish or basket, first premium to Ezra Kendall, of Sterling, $1,00
Second best, second premium to Jacob Haskell, of Fitchburg, ,50

GRAPES.

For the best display of foreign grapes, first premium to Walter Heywood, of Fitchburg, $3,00
Second best, second premium to Waldo Wallace, of Fitchburg, 2,00
For the best display of native grapes, first premium to Charles H. Colburn, of Leominster, 3,00

Third best, third premium to Abel Simonds, of Fitchburg, 1,00
Gratuity to Asa Sawyer, of Fitchburg, .50

ASSORTED FRUIT.

For the best dish or basket, first premium to Moses M. Gage, of Fitchburg, $2,00
Second best, second premium to Cyrus Thurston, of Fitchburg, 1,00

FLOWERS.

For the best display of plants in pots, first premium to Walter Heywood, $2,00
Second best, second premium to Charles A. Emory, of Fitchburg, 1,00
Gratuity to H. F. Coggshall, of Fitchburg, ,50
For the best display of cut flowers, first premium to Jane A. Clifford, of Fitchburg, 1,00
Second best, second premium to Mary Green, of Fitchburg, ,50

GRATUITIES.

To Mrs. H. F. Coggshall, of Fitchburg, $0,50
To Mrs. J. F. D. Garfield, " ,50
To Mrs. Francis Russell, " ,50
To Mary A. Hale, " ,25
To Georgiana Durant, " ,25
To Nellie Heywood, " ,50

CRANBERRIES.

For high bush, a gratuity to Edward Bacon, Jr., of Westminster, $1,00
For common, a gratuity to Benjamin Wheeler, of Fitchburg, 1,00

NATHANIEL WOOD, *Chairman.*

FANCY ARTICLES.

The Committee on fancy articles award the following premiums:

M. Dora Whittemore, painting in oil, fruit, and a copy of Raphæl's Beatrice, in oil	$2,00
Mrs. T. C. Walker, 2 landscape paintings, in oil	1,00
Miss Mary D. Stone, landscape painting and pastel	1,00
Mrs. M. A. Beckwith,	1,50
Miss Mary S. Haskell, 2 portraits, pastel	,50
A. H. Hunt, hair work	,50
Mrs. C. Wallace, hair work	,50
Mrs. A. W. Bruce hair bracelets	,50
Miss Lizzie Pratt, wax fruit,	,50
Mrs. G. W. Wetherbee, wax flowers,	,50
Mrs. H. Platt, leather frames,	,50
Mrs, Mary A. Cowdin, painted vase,	,50
Miss Fanny C. Allen, painted vase,	,50
Miss Rebecca Boutelle, cottage,	,25
Mrs. Harriet Larned, silk bed spread and skirt,	1,00
Mrs. Vanduger, knit bed spread,	,50
Mrs. F. Boutelle, imitation of marsellaise quilt,	,50
Mrs. B. Merriam, bed quilt,	,25
Miss Marietta Piper (5 years old) bed quilt,	,25
Mrs. G. S. Gilchrist, bed quilt,	,50
Mrs. Emma Boutelle, bed quilt,	,25
Mrs. Charlotte Bowker, bed quilt,	,25
Mrs. Martha Ellis, embroidery,	,50
Miss Kimball, embroidery,	,25
Miss Mary F. Smith, embroidery,	,25
Mrs. Daniel Cross, embroidery,	,50
Miss Caroline M. Stearns, embroidery,	,50

Mrs. Dr. Hitchcock, embroidery,	,25
Miss Ellen A. Merriam, embroidery,	,25
Miss Jennie Corser, embroidery,	,50
Miss Elisabeth G. Gardner, crotchet shawl,	,75
Miss Emma Boutelle, crotchet collar,	,25
Mrs. G. P. Rice, crotchet mittens,	,75
Mrs. Damarias Flint, (97 yrs. old) worsted work,	,50
Amanda Damon, worsted work,	,50
Mrs. B. Snow, worsted work,	,50
Miss Martha Beeman, (7 years old) hose,	,25
Mrs. Silas Buss, (90 years 10 months old) hose,	,50
Mrs. Eliza Tufts, cotton hose,	,15
Mrs. J. M. Harris, specimen of darning,	,25
Mrs. Ruth Stanley, specimen of plain knitting,	,25
Mrs. Rebecca Pratt, (94 years old) knitting,	,50
Mrs. David Lawrence, hose,	,25
Mrs. Isaac B. Woodward, yarn,	,25
Mrs. Levi Kendall, yarn,	,25
Mrs. Sarah A. Carter, bonnet,	,25
Mrs. Anna Trees, bonnet,	,25
Miss Catherine Dole, bead work,	,25
Mrs. Wm. Fletcher, worsted work,	,25
Miss Rebecca Boutelle, worsted work,	,25
Mrs. Caroline M. Stearns, embroidered chair,	,50
Mrs, Josiah Shelden, 2 baskets,	,50

G. F. BAILEY, *Chairman.*

FARMS.

The Committee on farms submit the following report.

There were but two farms entered, only one in season to be entitled to a premium; that of Mr. Nathaneil Hartwell in Shirley. This we visited on the 3d of July, and found Mr. H. ready to show us his farm with the growing crops. It contains about eighty acres of land, some of it good and some poor; about seventeen acres of it is in mowing and tillage, which was taken good care of mostly by his own labor. He has made good improvements on his farm by destroying the brush, laying stone wall, draining his low ground, both with open and blind ditches, and by blowing some of his large stones, and sinking others so low as not to interfere with the plow.

On the 13th of September we again visited said farm, the hay crop had been secured, most of the corn and potatoes looked well, one piece which had been planted with corn for six or seven years in succession, and manured with 200 lbs. of guano to four loads of meadow mud to the acre, well mixed and put in the hill; looked well in July, but in September showed that the deposits had been over-drawn; a part of the piece manured and treated in the same way had a good crop of English turnips on it. Mr. H. was careful to save all of his manure and apply it to the soil at the right time and place. We were politely entertained by him and his very worthy help-meet, and consider him entitled to much credit for his skill and industry in managing his farm so as to make it profitable.

We were disappointed in not finding in his statement

the expenses and income of the present year, as required by the rules of the society, in consequence of which we do not feel at liberty to award him a premium, but recommend a gratuity of $8,00

We examined Mr. W. W. Cotting's farm in Lunenburg, which had been entered with the Secretary, but not in season to be entitled to a premium. We found Mr. C. making good improvements on his farm and buildings, and when completed think he will have a desirable residence; as the location is pleasant, and the fields handsome and productive, and to all appearances skillfully managed. The farm contains seventy-five acres. The stock consists of six cows, three horses, one colt and three yearlings; he had three acres in corn, one in ruta bagas, one in carrots, and one in potatoes; there were two acres of young orcharding that looked well, and some fine dwarf pear trees. We recommend a gratuity of $5,00 to Mr. Cotting.

On the 21st of August, by invitation, we visited the farms of Abel F. Adams, Esq., and Dr. Jabez Fisher, in Fitchburg.

We found Mr. Adams at home, with his frock on, at the head of his men, where every thriving farmer may expect to be found. In the first place we viewed his barns, which were filled to their utmost capacities with the best of hay and grain, with a nice cellar under the whole, and abundant means for saving all the manure. We next went through his orchard, where there was a variety of very good fruits. His mowing lands were laid down very smooth, and well stocked with grass. Judging from the stubble, there has been taken off a large crop, mowed close and raked clean. His corn and

potatoe fields showed that they were managed by *live* men, and the weeds did not get the start. All the crops on the ground indicated that there was a head to plan, as well as hands to execute. Every acre that could be cultivated, showed that it had not been neglected, but was in a condition to remunerate the laborer for the work bestowed. The stock consisted of one yoke of oxen, two horses, seventeen milk cows, and four swine.

Mr. Adams' doctrine is to keep all the farm as productive as possible, and this is done by rotation of crops, changing fields from mowing to pasturing, and pasturing to grain crops, &c. The Committee are aware that they are repeating to the public what was very well known before, that Mr. Adams' has a first rate farm, managed in the best manner, and that the State premium on farms was awarded to him but a few years since. This is a pattern for farmers to look at, who wish to improve their farms. The tools are all in their places; the work is done at the right time and in the best manner; and what is better than all, it meets a handsome profit, after paying all expenses, and still improving the farm.

After leaving Mr. Adams' farm we called on Dr. Jabez Fisher, the worthy President of our Society. We expected to see the greatest variety of the products of the soil that could be found in Worcester North, and our expectations were fully realized; to write a description of all that we saw would fill a volume, which your Committee will not attempt to do. His farm is in a retired situation in the northerly part of Fitchburg, and contains thirty-three acres of land, twelve acres of which

are in hoed crops, and most of the twelve acres set in fruit trees, or grape vines; embracing 1300 pear trees, 300 peach trees, 200 apple trees, 100 cherry trees, 50 plum trees and 600 grape vines, all of them set within the last five years, which now look vigorous and healthy; some of them bearing fruit that looked almost too tempting to keep hands off.

All the crops on the farm looked well, the lots were skillfully laid out, and displayed good taste. The buildings were all new and in fine condition. We took particular notice of the barn which is an octagon building, sixty feet in diameter, built of field stone, laid in cement from the bottom of the cellar, with a water-tight cellar for both the solid and liquid manure, the latter being applied to the crops in a liquid state. His stock consisted of four cows, one yearling, one horse, and two mules, which are kept in the stable most of the year, which the Doctor thinks is the true way to keep stock, to yield the greatest profit. He says he can make $40 worth of manure in a year, on his plan, from one cow. We had no statement as to expenses and income of the present year, but think the profits must be prospective rather than present. The Committee were politely entertained by the Doctor and his worthy companion, in whose house there seemed no lack of the good things of this life, and retired from their day's work highly gratified with the privilege enjoyed.

The Committee regret that there were no more farms entered for premiums, and hope that hereafter there will be more interest taken in this mportant part of agricultural improvement.

LEONARD BURRAGE, *Chairman.*

NATHANIEL HARTWELL'S STATEMENT.

FARM.

To the Committee on farms:

Gentlemen:—In pursuance of the plan which you aid down for my guidance, I proceed to give you a ›rief history of my past career, and present success as :n agriculturist. My farm is situated in the northerly ›art of Shirley, is naturally a cold, damp and exceedngly rocky soil, yet highly productive when brought ınder a proper state of cultivation. I made my ›riginal purchase in the autumn of 1834, and entered ıpon its improvement in the spring of 1835, being then twenty-four years of age. My first purchase consisted of thirty-eight acres, originally divided into mowing, pasturing, and wood land; but from long neglect, the mowing lands were overrun with brushwood, with the exception of about two acres, which bore a coarse grass entirely unfit to convert into marketable hay. All the fodder that I could get from the farm the first year was insufficient to winter one cow. In 1840, I added six acres to my farm, which was considered of very little value at the time, but which has become excellent tillage soil under careful cultivation. In 1851 I completed my land domain, by the addition of twenty-five acres, making in all sixty-nine acres. When I purchased my farm there were the remnants of a house and barn upon the premises, but both so much dilapidated by time and neglect, as to be totally unfit for use. The first summer of my residence on the farm, was devoted to rebuilding my house, which exhausted all my finances, which left the entire cost of my land purchase a debt upon my shoulders. I have made several

improvements upon my dwelling since, and have brought it, both in size and convenience, into a respectable farmer's establishment; and I take especial care to keep it properly covered with paint. I have also erected a barn fifty-eight feet long, and thirty feet broad, which is furnished with a cellar, and supplied with a well of pure water. I have also erected out-houses, all that are required for the convenience of a well regulated farm. I now keep a horse and nine cows, for which I have a large supply of hay. For the last ten years my average yield of rye and corn has been 200 bushels per annum, the larger part being of the latter grain. My root crops, consisting entirely of potatoes and turnips, have been from 75 to 100 bushels during the same time. I am now making arrangements to extend my root cultivation, both in variety and amount.

I have been in the way of seeding down my moist lands in the autumn, the last of September or the first of October, and of seeding down my dry fields in the spring. I always sow clover, timothy, and redtop; I put upon the acre, about eight quarts of timothy, an equal amount of redtop, and six pounds of clover. As far as I can, I top-dress my mowing lands; and the best time to apply the dressing (which should be thoroughly pulverized) is in early June, when the grass has started and is ready to protect the application from the intenser rays of the sun, until it shall become decomposed and amalgamated with the soil. I put upon my tillage land fifteen loads of green manure to the acre, and on planted fields, a shovel full of composted manure in each hill. I have frequently top-dressed

my pastures with plaster, using about a ton in a year; and have also annually applied 300 weight of guano to different darts of my land.

The low swampy portions of my farm have been brought to a high state of culture by means of draining. A large portion of my drains have been open; yet I have under-drained to the distance of from thirty to forty rods, which I much prefer to open draining. My under drains are laid so low as to freely admit of plowing over them. I usually plow about eight inches deep and have never yet subsoiled.

My cattle have been native stock, crossed with the Devon.

I regard a horse team as the cheapest and most expert in the transaction of almost all farming operations. I have sometimes kept oxen, but rely mainly on one well-trained horse. Instead of making butter and cheese, I sell my milk for market, the gross income of which, and my calves, for the last ten years, has been $400 per annum.

I have cultivated fruit to some extent, consisting of apples, peaches and cherries. My cherries have been confined to a few trees, which promise well. My peaches have grown well and yielded well for a few seasons, but have soon fallen under the severity of our winters. The old apple trees on my farm have died out, or been converted into select fruit. Since I commenced its occupancy in 1835, I have raised, budded with my own hands, and transplanted 201 apple trees. I set them twenty by thirty feet apart; they are just beginning to bear, and by their healthy, vigorous appearance, promise to be very prolific. For

the seven years that my orchard has been transplanted, I have kept the ground in a state of constant cultivation, varying the produce from roots to grain. I have annually washed my trees with a strong solution of soap suds. I have also, in the neighborhood of my buildings, by the road sides, transplanted thirty-nine maple trees, which will soon make an ornamental appearance, and afford an agreeable shade.

When I took possession of my farm, it was as destitute of fences of every kind, as it was barren of cultivation; I have now completed 317 rods of stone wall, all laid by myself, which I regard as the most durable and effective defence against the inroads of neat cattle or horses. The stones for this wall I have taken from my mowing and tillage fields; but as many large ones, not wanted for this purpose, and still above the surface of the soil, remained, to the great annoyance of the plow and scythe, I have, by excavations, sunken these stones below the reach of the plow, and given an even and smooth plain to lands that were dotted with the most formidable incumbrances against which a New England farmer is called to labor. While, then, by a careful cultivation, I have brought my grounds from a cold and profitless state into one of gratifying thrift, I have greatly reduced the labor of tillage and harvest, by eradicating from their surface every species of wild root and bush and stone, by which it had been profusely overspread.

Notwithstanding the increase that I have made to my estate, by my agricultural improvements, I have realized enough from my labors to liquidate all my debts and to invest a small amount in security loans.

And this has been effected by devoting my time and labor to my business, and dispensing almost entirely with the employment of others. I consider, therefore, that my experience is ample evidence of the profitableness of farm industry, and that whoever goes to the work with a stout heart and willing hand, will cause "the wilderness to bud and blossom," and surround himself and family with the means of independence, which few in other circumstances can so fully enjoy.

My productions for the present year are, 265 bushels of turnips, 62 bushels of potatoes, 160 bushels of Indian corn. I might also mention that my poultry has brought me a gain of $30 per year, for the last two years.

ORCHARDS.

The Committee on Orchards offer the following report:

We visited and carefully examined the several orchards entered, on the first and second days of October last, commencing at Mr. John Minott's, in Westminster; committee all present. His apple orchard contains 140 trees, which will appear by his statement; also, his method of setting and cultivating his trees. The soil is a warm, sandy loam, nearly level, protected on the west and north by woods. There are many good trees in this orchard, and many have been injured; diseased spots on body and limbs may have been produced by the ox or the plow; if so, however, we think Mr. M. was not with

the team. We judge him to be a good farmer, his cultivation is clear and thorough, no weeds or grass around his trees, or wall which protects his orchard; the whole ground is cultivated in this orchard neatly. We have no doubt but Mr. Minott has the best apple orchard that can be found in his vicinity. His farm is located in the west part of Westminster; for further particulars would refer to his written statement. His pear orchard is situated near his dwelling house, sloping gently to the south; soil a good warm, and strong loam, rich and in good cultivation as a vegetable garden; contains 68 pear trees, generally looking well and making a good growth; we think they have been well cultivated and the soil and location well selected. We have no premium at our disposal for a pear orchard, but the Committee were unanimous in the opinion that Mr. M. richly merited something at our hands, for his success in cultivating the pear, and we recommend a gratuity of $4,00 to him for his pear orchard; we would also refer to his written statement relating to pear orchard. Justice demands that we state the that Committee were most kindly and hospitably received and entertained by Mr. Minott and family; we were pleased with his farm and the general indications of neatness and good husbandry, but on entering his house we found it was not all outside show.

We next visited Dr. C. C. Field's orchard, in Leominster. His trees have been planted nine and ten years, all the same age from the budding, are in a good bearing condition, remarkably uniform in size and appearance; it contains 180 trees, mostly Baldwins. They were carefully selected and planted by a gentle-

man who understands the business. The soil is a strong slaty loam, sloping gently to the south-west; the trees are all healthy and very perfect, it is a beautiful orchard. The statement of Dr. Field will give his mode of cultivation and general management of his trees, and contains some very good suggestions, which see.

Joseph Peirce's orchard is in the village of Fitchburg, on Prospect street; contains 33 trees, on a pretty steep side hill, sloping to the east or south-east. His trees are not as uniform in size and appearance as Dr. Field's, has some very good trees—the soil is a clayey loam on a clay subsoil; has been troubled with the borer considerably, and thinks his trees have been injured by potash water, used before he bought the orchard. His trees are now growing well, the land is in good cultivation, and he intends keeping it so.

Addison Hubbard's is near the village of Fitchburg, on Mechanic street; is located on a steep side hill, with nearly the same inclination to the east and south-east, as Mr. Pierce's—soil gravely loam, resting on clay and mica-slate; his orchard contains 118 trees. His statement shows the manner he obtained his trees; they are set only one and a half rods apart, which is quite to near. Mr. Hubbard has at present a very good orchard, producing well, they have been planted from twelve to fifteen years. What has been done in in this orchard has mostly been done by Mr. Hubbard's own hands, and it is not a little; he deserves much credit for what he has accomplished. He obtained the second premium on his orchard in 1855, he could now only compete for the first. We found those we thought better.

We have next to notice the orchard of our President, Dr. Jabez Fisher. Here we spent several hours, with much pleasure and some profit. His statement is full and particular, and for most particulars we would refer to that. His trees have been set four years, and were from two to four years from the budding when set; some of their heads had got turned a little in the nursery. This defect he is overcoming and in a year or two all other things being equal, their heads will be equal or nearly so. The trees are making a very strong growth, all look healthy and in good condition, with the small exception already mentioned, and this pertains to a small part only of his 137 trees. The Committee were satisfied that this orchard will be better, and more perfect in a year or two than it is now, it will then be best.

After making a careful examination, of these several orchards, the Committee were in no doubt which were the best *two;* the next question, which was the best *one*, was not as readily decided; after due deliberation, however, the Committee were unanimous in their opinion that the orchard of Dr. C. C. Field, of Leominster, is *now* the *most* perfect, and awarded him the first premium of $10,00; and the second premium of $5,00 to Dr. Jabez Fisher, of Fitchburg, for his orchard *now almost* perfect.

Before preparing this report the Chairman of the Committee has carefully examined all the reports of former committees on orchards, and competitors statements of their management of their respective orchards, and various incidental remarks on the same subject, which have fallen from Committees on fruits, and Committees on farms, and from other sources which have

been published in the several volumes of the Agriculture of Massachusetts; from these much that is valuable may be gathered. Most individuals who have planted an orchard have made some mistakes, either in their mode of planting, the selection of a location, or subsequent management. These mistakes they have stated to warn others that they may avoid the same. To those about to plant an orchard, I would say, consider well the subject before you begin; you are about to erect a mouument for several generations to come: if you, and those who come after you do your duty, it will stand firm for more than a century. Should a work of this magnitude be commenced without due preparation? The mere bringing together of all or many important facts which have been well established by past experience of the most scientific cultivators of fruit, would not be as satisfactory and convincing as for each individual to collect for himself from the various sources heretofore alluded to, and others which may be within his reach, where he will find the facts and convincing proof of these facts which could not be collected and spread before you in this report. I cannot close without particular reference to the excellent report of your own Committee of last year, which contains much that is worthy of careful consideration; also to the report of Mr. Ives of Salem, and the address of Marshall P. Wilder, all of which may be found in the Agriculture of Massachusetts. Examine them carefully and you will be richly rewarded, one word more, learn to handle an apple without bruising it, which is my first commandment.

Respectfully for the Committee.

JONAS A. MARSHALL, *Chairman.*

C. C. FIELD'S STATEMENT.

ORCHARD.

The orchard which I offer for premium, consists of 180 trees, most of them were transplanted in the spring of 1848, and the remainder in 1849; the latter were of the same age from the budding, as the former, and they are now quite as large. Before setting the trees, the holes were dug four feet in diameter, and from fifteen to eighteen inches deep. The sods and surface soil, together with a small quantity of swamp muck in dry places, where the trees would be likely to be affected by drouth, were returned to the bottom of the holes; the finest and best part of the soil in the vicinity of the holes was carefully placed around and above the roots, using the hands when necessary; and then the subsoil was spread on the surface. The trees were set a little lower than they stood in the nursery. One row of nine trees had a horse cart load of "horn piths" to every three trees, placed in the bottom of the holes, but they are no better now than many others. The whole ground, where about one-fourth part of the orchard was planted, has been under constant cultivation with corn, potatoes or fodder corn, and here the trees have made the best growth. About one half of the orchard has been cultivated all the time except three years, one year, wheat or rye was raised and two years grass. The remaining one-fourth has been in grass all the time; but a large circle around the trees has been dug up here each spring, and a a dressing of compost applied every fall. On the cultivated part, no special application of manure has been made to the trees besides that spread upon the whole surface for the corn or potatoes.

The trunks of these trees have been washed with potash water, strong soap suds or ashes and water, twice a year; nevertheless, the borer has left the marks of his depredations, particularly on those where the grass or grain was allowed to grow around them for one or two years. Where the whole ground has been kept under constant cultivation, the borer has seldom found a lodgment. To insure the best growth of the trees and for the prevention of the ravages of the borer, I am satisfied that the whole surface of a young orchard should be kept cultivated and manured, for some hoed crop. And even in an orchard of old trees the increased quantity, and improved quality of the fruit will amply repay the farmer for keeping the whole soil under good tillage.

The trees in this orchard, when originally set out, were all Baldwins except one Williams' Red, three Danvers Sweet, two Hubbardstons, and four Roxbury Russets. To have some *variety* of fruit, and also to test the quality of some other kinds, more or less approved, I have changed the tops of about 30 of them by ingrafting one or more with each of the following varieties, viz: Williams' Early Red, Peck's Pleasant, Gravenstein, Early Sweet Bough, Seaver Sweet, Washington Sweet, R. I. Greening, Early Harvest, Leland Spice, Shirley, Canada Reinette, Red Astrachan, Minister, Holmes, Holden, Ladies Sweet, Mother, Jewett's Red, Hunt's Russett, American Golden Russett, and Northern Spy. The process of grafting I commenced four years ago, and occupied three years, changing one-third of each tree in a year, beginning at the top. The growth of the trees has been somewhat retarded by grafting, the R. I. Greening, William's Red, and Early Harvest, being the least affected in that way.

JABEZ FISHER'S STATEMENT.

ORCHARD.

The apple orchard which I enter for premium is made up of 137 trees, of the following varieties, viz: 31 Baldwin, 21 Hubbardston Nonsuch, 11 Minister, 10 Danvers Winter Sweet, 9 Coggswell, 8 Porter, 7 Large Yellow Bough, 6 Williams' Favorite, 6 Roxbury Russet, 6 Fameuse, 6 Red Astrachan, 5 Seaver Sweet, 4 Hunt Russett, 4 Ledge Sweeting, and 3 Colchester.

With the exception of a few trees, the orchard was planted in the spring of 1854. The trees are set in the quincunx form, at a distance of 30 feet from each other. Peach trees were set among the apples, but eventually it is expected that the whole ground will be occupied and covered by the apple trees alone. The soil is a strong loam, sufficiently retentive of moisture, and capable of producing upwards of 90 bushels of corn to the acre, if weighed previous to drying.

At the time of setting the orchard the land was in sward. Preparations were made by digging holes five feet in diameter, and twenty-two inches deep. These were filled with sods and loam, and the trees carefully planted. They varied in size somewhat, having cost from twenty-five to fifty cents each, a rather large price I am aware, but I have not seen occasion since to regret the purchase of such fine specimens.

I applied different manures and special fertilizers by mixing them with the loam used in filling up around the trees at the time of planting, but I have not been able yet to discover that any one of them possessed advantages over the others, or in fact that any benefit has accrued from the use of either of them.

In 1854 the only cultivation attempted was once pulling weeds. In 1855 the whole ground was plowed and planted, and has been kept under cultivation ever since. I have manured but moderately, and with the exception of a portion of the ground which has this season carried a fine corn crop, I have cultivated roots. I find, however, from the rapidly increasing shade, more especially from the peach trees, that I shall have to give up cropping altogether very soon, but cannot bring myself to believe that I can afford to relinquish cultivation.

The average annual growth of the whole orchard since the first season, has been about eighteen inches. The Baldwin is the finest grower, while the Roxbury Russet and Cogswell are nearly as good. Specimens of each of these will measure thirteen inches in circumference at a foot from the ground, and two or three of them fourteen and a half inches. The most productive is a Porter, which bore the past season upwards of three pecks of good fruit.

In 1856 the trunks of the trees were washed with a mixture containing a pailful of water, a pound of potash, and a shovelful of fresh cow-dung. Since that time I have discarded the use of dissolved potash altogether, as it gives to the bark an unhealthy, red and blistered look; especially on the south side. In the spring of the present year I used equal parts of soft soap and fresh cow-dung, sufficiently diluted with water to be easily applicable with a whitewash brush. With this compound I feel well satisfied, as it remains on during a considerable time, and leaves the bark of that deep, olive green color, indicative of vigorous health.

The boarer has thus far done but little injury. My course is to examine each tree at least twice in a year with jacknife and wire. As soon as the first of September, all of the eggs deposited by the insect through the summer have hatched, and the larvæ may be readily found by their borings. From the superficial character of their operations at this time they are very easily destroyed, and a careful examination in spring will disclose any that may have been previously overlooked. With regard to the best time for pruning, we may find authority for performing the operation at almost every season of the year; but as to the result of my own reading and observation my plan is this: Keeping in view these two great principles, that winter pruning promotes growth, and summer pruning or pinching, increases fruitfulness, I prune at any time when it is most convenient, being careful, in the words of an old authority, to prune only "when my tools are sharp." If I at any time expose any considerable surface of wood, I am careful to cover it with the shellack solution, which prevents decay, and the wound is soon covered with bark.

JOHN MINOTT'S STATEMENT.

APPLE ORCHARD.

The Apple orchard which I offer for premium consists of one hundred and forty trees, of some twenty-seven different varieties, which were transplanted in the spring of 1852–3. The holes were dug about five feet in diameter and about two feet deep, and filled with top

loam. The land was pasture, plowed in the spring of 1851, and planted with corn, with one shovelful of compost manure to the hill. In 1852 planted with corn, and eight hills potatoes around each tree, with stable manure under the potatoes; corn manured same as last year. In 1853 and 1854, planted and manured same as in 1852; in 1855 sowed with wheat and clover; in 1856 cut a crop clover the last of June, and plowed in a crop clover in September. During the last two years I have kept the grass and weeds clear from the trees. I think the clover had a good effect on the trees, but the year it was in wheat my trees made the least growth of any, after the first year of transplanting. In 1857 I planted with corn, manured with guano and phosphate of lime, and eight hills of potatoes under each tree, manured with stable manure. In 1858 planted same as last year, except the corn was manured with one shovelful of compost manure to the hill. I have washed my trees with lye made from wood ashes, strong enough to hardly bare an egg, with some soap stirred in. I think this as good a wash as I can apply to my trees. I have had considerable trouble with the apple borer; I find that my only remedy is to follow him with the knife; I examine every tree two or three times each season. I do not think washing the trees will destroy the borers after they have got under the bark. I have tried banking up my trees two winters to prevent the mice eating the bark, but I have come to the conclusion that it is a bad practice; I think I have lost seven or eight good trees in consequence of the dirt freezing and thawing, so as to kill the bark entirely round the trees some four or five inches wide, while I have lost but one tree in six years by the mice.

JOHN MINOTT'S STATEMENT.

PEAR ORCHARD.

The Pear orchard which your Committee examined when at my place, consists of sixty-eight trees; sixty standard trees and eight on quince stocks, of some twenty different varieties, viz: ten Flemish Beauty, eight Bartlett, four Buffums, four Dunmores, three Andrews, three Seckel, three Lawrence, two Napoleon, two Winter Nellis, two Bleecker, two St. Gishlin, two Louise bon de Jersey, two St. Michael, two Glout Morceau, one Belle Lucrative, one Madeleine, two Rostiezer, and several other varieties that I do not recollect. I got forty of my trees of Messrs. Bond & Damon, of North Brookfield, and transplanted them in the spring of 1855; the remainder came from Rochester, N. Y., and were set in the spring of 1856 and 1857. I think those that came from Brookfield have made a more vigorous growth than those that came from Rochester. In my little experience in cultivating the pear, I find that some varieties make a much more vigorous growth than others; for instance, the Flemish Beauty, the Buffum, the Dunmore, the Napoleon, and some two or three other varieties have made a very good growth, while the Bartlett, the Winter Nellis, and some others have made very little growth.

I keep the ground cultivated by making it a kind of a vegetable garden, where I raise my sweet corn, early potatoes, peas, beans, ruta-bagas, squashes, &c.; I manure with stable manure spread and plowed in. I have washed my trees with a weak lye and soft soap twice a year; I think this as good a wash as I can apply to them.

My experience with the dwarf pear is very limited, and

I have little faith in them; those I that have set have made very little growth. I manured as high as I thought it would do, and cultivated in the best manner, but still there is no growth. Perhaps some of the honorable Committee can give me some information in relation to cultivating the drawf, if so, it will be gratefully received.

ROOT CROPS.

The Committee on Root Crops have attended to their duties, and after examination of the statements presented, have awarded the following premiums:

To John Brooks, Jr., of Princeton, for the most profitable half acre of potatoes, the first premium of $4,00

To John Brooks, Jr., of Princeton, for his second lot of potatoes, the second premium of 3,00

In view of the pains which appear to be taken in instituting sundry experiments on the field of potatoes entered, and the care in making a detailed statement of the same;* we recommend to Abel Marshall a gratuity of $2,00.

To Jabez Fisher, of Fitchburg, for the most profitable eighth of an acre of English turnips, the first premium, $3,00

*See Mr. Marshall's statement, under the head of Experiments, which embraces nearly all contained in his statement intended for this department.

To John Brooks, Jr., of Princeton, for the second best eighth of an acre of English turnips, the second premium of $2,00

To John Brooks, Jr., of Princeton, for the most profitable eighth of an acre of ruta-bagas, the first premium of 3,00

To Abel Marshall, of Fitchburg, for the second best eighth of an acre of ruta-bagas, the second premium of 2,00

To Isaac B. Woodward, of Fitchburg, for the most profitable eighth of an acre of carrots, the first premium of 4,00

Two other entries in carrots were made, but were withdrawn.

To Lawrin Pratt, of Fitchburg, for the most profitable eighth of an acre of mangold-wortzel, the first premium of 2,00

No other entry for this crop was made.

To Lawrin Pratt, of Fitchburg, for the most profitable eighth of an acre of onions, the first premium of 3,00

To Lawrin Pratt, of Fitchburg, for his second lot, the second premium of 2,00

E. F. BAILEY, *Chairman.*

JOHN BROOKS JR.'S STATEMENT.

POTATOES.

The half-acre on which my Davis Seedling potatoes grew is a wet soil, with a clay sub-soil. The crop of 1856–7 was grass without manure. It was plowed in the fall of 1857 with a double Michigan plow, about nine inches deep; harrowed and furrowed in the spring; manured with seven and a half loads, spread before plowing in the fall; a handful of plaster in each hill at planting, and twelve bushels ashes applied to the hill on hoeing the first time; planted May 15, in hills, with six bushels Davis Seedlings; hoed twice and harvested October 12.

Cost of plowing,	$1,50
" harrowing,	,50
" furrowing,	,12
" manure,	7,50
" plaster,	1,20
" ashes,	1,50
" seed,	5,00
" planting,	2,25
" hoeing,	4,00
" harvesting,	4,00
Total,	$25,57

Produce, as estimated by the Committee, October 12, 86 lbs. 9 oz. per square rod—equal to 6925 lbs., or 115 5-12 bushels the half-acre.

The half-acre on which my St. Helena potatoes grew is a light gravelly soil. The crop of 1856–7 was grass, without any manure. It was plowed May 25th, with a double Michigan plow, about eight inches deep;

harrowed and furrowed; manured with seven and a half loads horse manure, spread before plowing, and 150 lbs. guano mixed with one-half load muck, applied in the hill at planting; planted June 8th and 10th, in hills three and a half by two and a half feet apart, with six bushels St. Helena's; hoed twice, and harvested Oct. 2d and 4th.

Cost of plowing, &c.,	$3,00
" manure,	7,50
" guano,	4,50
" seed,	3,00
" planting,	2,25
" hoeing,	4,00
" harvesting,	4,00
Total,	$28,25

Produce, as estimated by the Committee, October 2, 83 lbs. per square rod—equal to 6640 lbs., or 110 2-3 bushels the half acre.

JABEZ FISHER'S STATEMENT.

ENGLISH TURNIPS.

The eighth of an acre upon which my English turnips were raised is a strong loam upon clay. The crop of 1856 was garden vegetables, manured lightly, the quantity uncertain; that of 1857, peas, with a small amount of manure in the drill only. It was plowed July 26th, after peas, about seven inches deep, harrowed and brushed; was manured with fifty bushels of horse manure, and an equal bulk of liquid manure; planted

July 21st, with ¼ lb. of purple top, strap leaved turnip, and harvested November 9th. No other cultivation.

Cost of plowing, &c.,	$0,50
" manure,	5,00
" seed and planting,	,37
" harvesting,	2,50
Total,	$8,37

Produce, as estimated by the Committee, November 9th, 258½ lbs. per square rod, or 5170 lbs. the eighth acre.

JOHN BROOKS, JR.'S STATEMENT.

ENGLISH TURNIPS.

The eighth of an acre upon which my English turnips were raised is wet, with a clay sub-soil. The crop of 1856–7 was English turnips, with two and a half loads cow manure and muck each year. It was plowed June 29th, nine inches deep, and smoothed with a cultivator; manured with 200 lbs. horn shavings, and sowed July 19, with ⅛ lb. blue top turnip seed, broad cast.

Cost of plowing, &c.,	$0,26
" horn shavings,	1,80
" seed and sowing,	,12
Total, exclusive of harvesting,	$2,18

Produce, as estimated by the Committee, November 8th, 152 lbs. per square rod, or 3040 lbs. the eighth acre.

ABEL MARSHALL'S STATEMENT.

ENGLISH TURNIPS.*

The eighth of an acre on which my English turnips were raised is a dark moist loam. The crop of 1856 was grass, without manure; that of 1857 potatoes, with one shovelful per hill of green stable manure. It was plowed twice in June and July, about seven inches deep, manured with one and three-quarters loads, spread, harrowed, rolled, ridged with a double mould board plow, and the seed drilled upon the top of the ridges July 20th; hoed twice with a hand hoe.

Cost of plowing, &c.,	$0,50
" manure,	1,75
" seed and sowing,	,25
" hoeing,	,38
Total, exclusive of harvesting,	$2,88

Produce, as estimated by the Committee, November 9th, 131 lbs. per square rod, or 2620 lbs. the eighth acre.

JOHN BROOKS, JR.'S STATEMENT.

RUTA BAGAS.

The eighth of an acre on which my ruta-bagas were raised is wet, with a clay sub-soil. The crop of 1856 was carrots, with two and one-half loads cow manure, and 12½ lbs. guano; that of 1857, carrots, with two and one-half loads compost, one-third muck, two-thirds cow

*Mr. Marshall's statement concerning his crop of ruta-bagas corresponds precisely with this, except that the ruta-bagas were planted July 19th, and produced 142 lbs. per square rod.

manure, and 12½ lbs. super-phosphate of lime. It was plowed June 18th, nine inches deep, smoothed with a cultivator, manured with 200 lbs. horn shavings, planted June 19th, in drills about fourteen inches apart, with 1-8 lb. seed, and hoed twice.

Cost of plowing, &c.,	$0,26
" horn shavings,	1,80
" seed and planting,	,18
" hoeing, &c.,	2,00
" harvesting,	1,50
Total,	$5,74

Produce, as estimated by the Committee, November 8th, 259 lbs. per square rod, or 5180 lbs. the eighth acre, with 104 lbs. tops per square rod.

ISAAC B. WOODWARD'S STATEMENT.

CARROTS.

The lot on which my carrots grew contains $21\frac{111}{121}$ rods, the soil is strong, with clay sub-soil. The crop of 1856 was grass, without manure; that of 1857 cow corn, with about one cord of green stable manure. It was plowed twice, June first, ten inches deep, then sub-soiled three or four inches deeper, harrowed and raked by hand, manured with six loads green stable manure, spread after the first plowing; sowed with a machine the fore part of June, with one-half pound long orange carrot

seed, cultivated once with a wheel hoe, and afterwards hoed three times and wed; harvested November 1st.

Cost of plowing, &c.,	$2,00
" manure,	9,00
" seed and sowing,	,50
" cultivation,	6,25
Total, exclusive of harvesting,	$17,75

Harvesting 3 cents per bushel, which the tops pay for.

Produce, as estimated by the Committee, October 29th, 298 3-8 lbs. per square rod, or 6655 lbs. the lot.

I have been told by a farmer of Dorchester, that carrot tops are worth $12 per ton for cows in milk. I know—or rather think—they are better than any other green feed, but cannot say $12 per ton. I always use green manure for carrots; think sub-soiling causes the carrots to be much longer than they otherwise would be; do not thin them; think I get more weight of carrots than if I did.

LAWRIN PRATT'S STATEMENT.

MANGOLD WURTZEL.

The eighth of an acre on which my crop of mangold wurtzel was raised in a sandy loam. The crop of 1856 was corn-fodder, without manure; that of 1857 beans and turnips, with 4 loads compost. It was plowed twice May 5th, harrowed and brushed, manured with four loads spread, sowed with a machine May 13th with

one-fourth lb. seed, cultivated three times, and harvested Oct. 22d.

Cost of plowing, &c., - - - -	$1,00
" manure, - - - -	4,00
" seed and sowing, - - -	,25
" cultivating, - - - -	2,25
" harvesting, - - - -	1,00
Total, - - - -	$8,50

Product, as estimated by the Committee, October 8th, 250 lbs. per square rod, or 5000 lbs. the eighth acre.

LAWRIN PRATT'S STATEMENT.

ONIONS.

The eighth of an acre on which my onions were raised is a sandy loam. The crop of 1856–7 was onions, with four loads compost manure each year. It was plowed twice May 1st, three inches deep, harrowed and brushed, manured with four loads spread, sowed May 1st, with seven-eighths lbs. silver skin seed, cultivated with a hoe and by hand five times, and harvested Oct. 1st.

Cost of plowing, &c., - - - -	$0,75
" manure, - - - -	4,00
" seed and sowing, - - -	,25
" cultivation, - - - -	6,00
" harvesting, - - - -	1,25
Total, - - - -	$12,25

Product, as estimated by the Committee, September 14th, 323½ lbs. per square rod, or 6470 lbs. the eighth acre.

GRAIN.

The Committee on grain, though deprived of the services of their Chairman, (Col. Ivers Phillips), in closing up their labors submit the following report:

The duties of the Committee are somewhat onerous. By the rules of the Society we are compelled to travel to each of the fields entered for competition; harvest, and weigh or measure the produce of one rod of land in each, and keep them entirely separate from each other. To perform the duty in exact conformity with the rules of the Society, involves a necessity for considerable labor, and much trouble in preserving and storing each parcel separate, so as fairly to protect the rights of the competitors and furnish the desired information to the public. The crops assigned to the Committee for examination, extend from grass seed through the cereals, and *up* or *down* to the Drumhead Cabbage. Six applications have been made for the Society's premium on Wheat, four on Rye, two on Barley, two on Oats, two on Beans, thirteen on Indian Corn, (two for variety) and two on Cabbages. Several of the applications were withdrawn. Some of the competitors have made entries for more than one premium on the same field, supposing that the language of the offer of the Society to pay one premium for the best or most profitable acre, and other premiums for the next best &c., would entitle one man to all the premiums, providing he can raise as many acres that are superior to those raised by other competitors, as there are premiums, although all his acres may be in one field. While the Committee grant that the terms of the offer, may admit

of the construction thus put upon it, we do not think it was the intention of the Society to offer more than one premium for the same field, or in other words for the same experiment. We suppose the word acre when it occurs, was used to indicate that the Society did not intend to offer premiums for fields of less than an acre. We suppose a competitor has a right to enter his whole field or any acre of it for one of the premiums, but that he should not use the same field of grain, large or small, to compete for more than one premium, unless it was for variety, and we have been governed by this rule in awarding the premiums. We think any other course would be subversive of the principles of awarding premiums for fair competition, and discouraging and unjust to small farmers. We have examined the statements of the several competitors and award the following premiums:

To Solon Carter, of Leominster, for the variety of corn best adapted to our soil and climate, the premium of $3,00.

The first premium on corn, to Solon Carter of Leominster, $6,00. One square rod containing twenty-three hills, producing 45 lbs. of ears.

The second premium of $4,00, to Edward Smith, of Fitchburg, one rod of 27 hills, producing 32½ lbs of ears.

The third premium of $3,00, to Samuel Farwell, 2d of Fitchburg, one rod of thirty-one hills producing 31 lbs. of ears.

The fourth premium of $2,00 to John Brooks, Jr., of Princeton, one rod producing 32 lbs. of ears, but the corn was not as dry as the other samples.

First premium on wheat, to Solon Carter, $4,00, 14 lbs. to the rod.

Second premium on wheat, to W. W. Watson, of Princeton, $3,00, 11 lbs. 5 oz. to the rod.

Third premium on wheat, to Samuel Farwell, 2d, of Fitchburg, $2,00.

First premium on rye, Thos. Whitney, of Shirley, $3,00, 8¼ lbs. to the rod.

Second premium on rye, to George Page, of Shirley, $2,00, 7½ lbs. to the rod.

First premium on barley, not awarded.

Second premium on barley, to Lorriston Stockwell, of Fitchburg, $2,00, 8½ lbs. to the rod.

First premium on oats, John Brooks, Jr., of Princeton, $3,00, 10 lbs. 15 oz. to the rod.

Second premium on oats, to W. W. Watson, of Princeton, $2,00.

First premium on herds-grass seed, Benj. Safford, $2,00.

Second premium on herds-grass seed, to Levi Kendall, $1,00.

First premium on cabbages, to William Murnane, of Fitchburg, $2,00.

From Mr. Murnane's statement we find he sold four hundred heads on the lot at seven cents per head, and sixty heads at five cents. Mr. Levi Kendall and Dr. J. Fisher, presented samples of wheat weighing about 10 lbs. to the rod, which were very fine. The herds-grass seed was a superior article, and the Committee would recommend where practicable that farmers should raise enough for their own use.

ABEL F. ADAMS, *for the Committee.*

SOLON CARTER'S STATEMENT.

CORN.*

The lot on which my corn, that I offer for the Society's premium for the best crop, and also for the best variety, was raised, contains $271\frac{3}{10}$ rods. It is a clayey loam, *very springy*, called cold land. The crop of 1856–7 was grass, without manure. It was plowed once in July, 1857, after the grass was removed, and twice in May, 1858; was harrowed three times, furrowed lightly both ways, manured with eighteen loads stable manure from the barn cellar, spread before the spring plowing, and twelve loads compost put in the hill, and covered with the hand hoe; was planted June 1st, with Randall & Jones' single corn planter, using seven quarts seed, which goes in my name.

The cultivation was as follows, viz: As soon as the corn could be seen in the row it was plowed, one furrow per row one way, with a small plow, these furrows crossed

* Mr. Carter repeated, on this field, his experiment of 1856, by harvesting three lots, of one hundred hills each, in three different ways, and gives the result, as follows:

	Lot No. 1.	Lot No. 2.	Lot No. 3.
All husked Oct. 29, the ears spread about six inches deep, and so remained until shelled.	Cut up whole and stooked Sept. 25th.	Top stalks cut September 25th.	Left standing whole.
Harvested Oct. 29, ears weighed	189 lbs.	200 lbs.	196 lbs.
Shelled Dec. 8, corn weighed,	139 "	155 "	141 "
cobs weighed,	24 "	26 "	23 "
shrinkage,	26 "	19 "	32 "
Per cent. of shrinkage,	14	$9\frac{1}{2}$	16

As in 1856, so now the corn which had the top stalks cut, weighed most at harvesting, and shrunk least before shelling.

The lots for the above trial were selected by Col. Phillips, when examing the field for the Committee, of which he was Chairman.

per row one way, with a small plow, these furrows crossed with a small harrow; when large enough to hoe, the horse-hoe was run through both ways, followed by the hand hoe; before the second hoeing, which was early in July, it was thinned to four stalks per hill through the field, and worked with the horse-hoe as at the first hoeing, followed again by the hand hoe; after haying, the horse-hoe went through again both ways, making four times during the season that the field has been worked between rows, both ways, with the horse-hoe, harrow or plow. Last and least I went through the field and pulled what few weeds had escaped, leaving a clean field.

It was harvested October 28th and November 1st, in the usual way, by cutting at the ground. The stover I did not weigh, but consider it a fair equivalent for the cost of harvesting.

Cost of plowing, harrowing, &c.,	$16,00
" manure,	48,00
" seed and planting,	,62
" cultivation,	7,20
Total, exclusive of harvesting,	$71,82

Product, as ascertained by the Committee, November 10th, 38 lbs. shelled corn per square rod, or 10,309 lbs. the lot, equal to 184 bushels, or 108 bushels per acre, allowing 56 lbs. per bushel.

It will be seen that I make no reserve in my estimate for the value of the manure for after crops, for really I do not know how to estimate it; and besides, if we reserve for manure, I do not see why we should not also make an allowance for the improvement of the land by plowing and cultivating. Individuals estimate these matters so differently, I think it better to leave the whole subject in the hands of the Committee, believing they will deal justly with the competitors.

EDWARD SMITH'S STATEMENT.

CORN.

The acre on which my corn, that I offer for premium was raised, is a gravelly soil, with a hard sub-soil. The crop of 1857 was potatoes, with ten loads compost manure. It was plowed twice May 15th, first about seven inches deep, last lightly with one horse; was manured with twenty-five loads compost spread; planted May 25th with eight rowed yellow corn, hoed three times, the cultivator being used twice, and harvested October 20th.

Cost of plowing, &c.,	$4,00
" manure,	25,00
" seed and planting,	1,75
" cultivation,	7,50
" harvesting and storing,	7,00
Total,	$45,25

Product, $10 worth of stover, and 32½ lbs. of ears of corn per square rod.

THOMAS WHITNEY'S STATEMENT.

CORN.

The corn which I offer for premium for the best variety, is the Rhode Island premium Corn. It was planted the last Wednesday in May, on land previously pasture, broke up in May, and manured with about nine loads of green stable manure per acre, spread and harrowed in, and about the same quantity of compost put in the hill, furrowed both ways a little over three feet apart, about four stocks left to the hill on an average. All good

stalks produced from two to three ears each. I think it ripens as early as the King Philip. Yield about sixty bushels to the acre.

SOLON CARTER'S STATEMENT.

WHEAT.

The lot on which my wheat was raised contains two acres and seventy-two and two-thirds rods. The soil is a clayey loam upon a sub-soil of clay-pan, with occasional tight stones. The crop of 1856 was grass, without manure; that of 1857 corn, with about twenty-five loads per acre of manure from my barn cellar. It was plowed twice about the last of March, first by splitting the hills, two furrows per row; then plowed fine, six to eight inches deep, harrowed once after splitting the hills; no manure was used. It was sowed broad cast, April 3d, with two bushels per acre of coffee wheat, and was reaped July 28th, bound and set in bunches of from twelve to sixteen sheaves each, and covered with cloth caps; in this situation it remained ten or twelve days when it was put in the barn.

Cost of plowing, &c., per acre, - - -	$3,50
" seed and sowing, - - - -	4,00
" harvesting, - - - -	6,50
Total, per acre, - - -	$14,00

Product, as estimated by the Committee, 14 lbs. per square rod, or 2240 lbs., or 37 1-3 bushels, of 60 lbs. per acre.

THOMAS WHITNEY'S STATEMENT.

RYE.

The acre on which my rye was raised is an argillaceous soil; the crop of 1856 was corn, with about eighteen loads manure, that of 1857 corn with about ten loads of manure; in Oct. the corn was removed, the land plowed about eight inches deep, and about one and one-half bushels of white rye sowed broad-cast. It was reaped in July.

Cost of plowing, &c., - - - -	$3,00
" seed and sowing, - - - -	1,50
" harvesting, - - - -	6,00
Total, - - - -	$10,50

Product, 8¼ lbs. per square rod, or 1320 lbs. the acre, or 23 4-7 bushels of 56 lbs.

LORRISTON STOCKWELL'S STATEMENT.

BARLEY.

The acre on which my barley was raised is a light yellow loam; the crop of 1856 was potatoes, with ten loads compost manure, that of 1857 corn with thirteen loads of compost manure. It was plowed twice, May 7th and 8th, seven inches deep, and harrowed once. No manure was used. It was sowed May 10th, with three bushels of two rowed barley, cradled, bound and stooked, Aug. 4th.

Cost of plowing, &c., , - - -	$3,50
" seed and sowing, - - - -	4,00
" harvesting, - - - -	3,50
Total, - - - -	$11,00

Product, 8½ lbs. per square rod, or 1360 lbs. the acre, or 28 1-3 bushels of 48 lbs. Straw, 1700 lbs.

I have the best success in raising barley when I sow early, on moderately dry land.

JOHN BROOKS, JR.'S STATEMENT.

OATS.

The acre on which my oats grew is a light soil with a clay subsoil. The crop of 1856 was corn, with fifteen loads compost manure and 100 lbs. guano, that of 1857 potatoes, with fifteen loads cow manure. It was plowed once May 10th, about eight inches deep, manured with fifteen loads of horse manure, and 150 lbs. guano spread and harrowed in; sowed broad cast, May 10th, with three bushels Hungarian oats, and reaped Aug. 15th. They lodged very much, and I was obliged to harvest them before they were ripe.

Cost of plowing and harrowing,	$3,00
" manure and guano,	19,50
" seed and sowing,	1,62
Total, exclusive of harvesting,	$24,12

The thrashing cost every tenth bushel.

Product, as ascertained by the Committee, November 1st, 10 lbs. 15 oz. per square rod, or 1750 lbs. the acre, or $54\frac{11}{16}$ bushels of 32 lbs., but actually *measuring* 70 bushels the acre.

ANALYSIS OF PREMIUMS AND GRATUITIES AWARDED.

FARMS, &c.

Amount awarded for		Plowing,	$56,00	
"	"	Orchards,	19,00	
Total,				$75,00

FARM STOCK.

Amount awarded for		Bulls,	$31,00	
"	"	Milch Cows,	24,00	
"	"	Heifers,	46,00	
"	"	Calves,	35,50	
"	"	Working Oxen,	27,00	
"	"	Steers,	37,50	
"	"	Fat Cattle,	39,00	
"	"	Horses,	68,00	
"	"	Sheep,	9,50	
"	"	Swine,	31,50	
"	"	Poultry,	10,00	
Total,				$362,00

FARM PRODUCTS.

Amount awarded for		Indian Corn,	$21,90	
"	"	Wheat,	9,00	
"	"	Barley,	2,00	
"	"	Rye,	5,00	
"	"	Oats,	5,00	
"	"	Beans,	1,50	
"	"	Grass Seed,	3,00	
"	"	Potatoes,	20,79	
"	"	Carrots,	4,00	
"	"	Beets,	3,25	
"	"	English Turnips,	5,75	
"	"	Ruta-Bagas,	5,00	
"	"	Onions,	6,50	
"	"	Other Root Crops,	2,63	
"	"	Fruits and Flowers,	75,75	
"	"	Bread, Butter, Cheese, Pickles and Honey,	27,00	
Total,				$198,07

MISCELLANEOUS.

Amount awarded for Mechanical & Manufac'd Articles,	$34,75	
" " Fancy Articles,	26,00	
Total amount awarded,		$733,08

Premiums were paid to two hundred and twelve different persons, and the amounts distributed as follows:

Fitchburg,	$329,34	
Princeton,	174,79	
Leominster,	47,75	
Westminster,	31,00	
Lunenburg,	28,00	
Shirley,	26,00	
Phillipston,	22,00	
Sterling,	14,83	
Ashburnham,	8,50	
Pepperell,	7,00	
Ashby,	6,75	
Templeton,	6,00	
Total,		$701,96

FINANCES.

RECEIPTS.

Amount received from the Commonwealth,	$600,00	
" " " Income of the Fund,	190,93	
" " " New Members,	185,00	
" " " Admission Fees, &c.,	277,64	
Total,		$1253,57

DISBURSEMENTS.

Amount of Premiums and Gratuities paid out,	$701,96	
" Current Expenses, &c., for the year,	266,83	
Total,		$968,79

Amount of the permanent fund, Dec. 1, 1858,	$3800,00
Increase of funds the past year,	250,00

NEW MEMBERS.

FITCHBURG.

Arnold William E.
Brigham, Charles.
Carpenter, Daniel M.
Emory Charles A.
Goodrich, Henry A.
Goodridge, Edwin A.
Gould, William.
Proctor, D. A.
Rice, Oran S.
Sawyer, John.
Shepley, Stephen.
Spooner, A. J.

LEOMINSTER.

Allen, Joel C.
Boyden, Elliot E.
Brown & Allen.
Carter, James H.
Colburn, Charles H.
Cotton, Ward M.
Hosmer, William B.
Lowe, Philip H. W.
Putnam & Phelps.
Stearns, Thomas.
Stratton, Albert.

LUNENBURG.

Fairbanks, John B.
Mandell, William A.

PEPPERELL.

Blood, David W.

PRINCETON.

Benson, W. W.
Houghton, George W.

STERLING.

Barran, A. S.
Burpee, Edward.
Loring, Charles H.
Sawyer, Jonathan M.

SHIRLEY.

Chandler, John H.
Hartwell, Nathaniel.
Page, George.
Parker, James O.

TEMPLETON.

Chase, Henry.

WORCESTER.

Miles, Charles M.

OFFICERS OF THE SOCIETY FOR 1859.

President.

JABEZ FISHER, of Fitchburg,

Vice-Presidents.

MOSES M. GAGE, of Fitchburg,
EZRA KENDALL, of Sterling.

Secretary.

W. G. WYMAN, of Fitchburg.

Treasurer.

T. C. CALDWELL, of Fitchburg,

Trustees.

OHIO WHITNEY, Jr., of Ashburnham.
HOWARD GATES, of Ashby.
JOEL HAYWARD, of Ashby.
L. H. BRADFORD, of Gardner.
LEONARD BURRAGE, of Leominster.
SOLON CARTER, of Leominster.
THOMAS BILLINGS, of Lunenburg.
DANIEL PUTNAM, of Lunenburg.
JOHN BROOKS, Jr., of Princeton.
J. T. EVERETT, of Princeton.
GEORGE CHANDLER, of Shirley.
SAMUEL OSGOOD, of Sterling.
DANIEL MILES, of Westminster.
BENJ. WYMAN, of Westminster.
ABEL F. ADAMS, of Fitchburg.
THOMAS R. BOUTELLE, of Fitchburg,
JONAS A. MARSHALL, of Fitchburg.
JOEL PAGE, of Fitchburg.
IVERS PHILLIPS, of Fitchburg.
JAMES P. PUTNAM, of Fitchburg.
LORRISTON STOCKWELL, of Fitchburg.
JOSEPH UPTON, of Fitchburg.
MOSES WOOD, of Fitchburg.
ISAAC B. WOODWARD, of Fitchburg.
DANIEL WORKS, of Fitchburg.

Member of the Board of Agriculture.

JABEZ FISHER, of Fitchburg.

LIST OF PREMIUMS

FOR THE

SEVENTH ANNUAL EXHIBITION,

TO BE HELD AT FITCHBURG,

On Thursday and Friday, Sept. 29 and 30, 1859.

No person will be allowed to become a competitor for any of the Premiums herein offered, unless he shall have made an entry for the same, with the Secretary, within the time prescribed for each class, nor unless he shall also have furnished all required statements relating thereto within the specified time.

For the convenience of those who live at a distance, entries may be made by mail; and all entries so made must be delivered at some Post Office oneday previous to the expiration of the time specified, and must bear proof of having been so delivered either by a Post-mark, or a certificate of registry from the Postmaster.

STOCK.

All entries for Premiums under this head, must be made on or before the Tuesday previous to the exhibition, and all Stock must be owned by the person who enters it.

All Live Stock must have been raised by the person entering the same, or owned by him for at least three months next previously.

Each entry of Stock for the pens must specify the breed of the animal, if known, and the age.

All Stock, except Milch kine, Sheep and Poultry, must be weighed upon the same scale, in Fitchburg, and will be weighed free of expense.

BLOOD STOCK.

Authentic pedigrees will be required.

For the best Durham Bull,	$5,00
For the second best do.,	3,00
For the best North Devon Bull,	5,00
For the second best do.,	3,00
For the best Ayrshire Bull,	5,00
For the second best do.,	3,00
For the best Alderney Bull,	5,00
For the second best do.,	3,00

GRADE OR NATIVE BULLS.

For the best Bull, more than two years old,	$5,00
For the second best do.,	3,00
For the best yearling Bull,	4,00
For the second best do.,	2,00
For the third best do.,	1,00
For the best Bull Calf, of any breed, more than four months old,	4,00
For the second best do.,	3,00
For the third best do.,	2,00

MILCH KINE.

For the best herd of four Cows or Heifers,	$10,00
For the second best do.,	5,00

The person receiving these Premiums will not be allowed to compete for any other, with the same animals.

For the best Milch Cow, regarding age, quality and quantity of milk, expense of keeping, &c.,	$5,00
For the second best do.,	4,00
For the third best do.,	3,00
For the best three years old Milch Heifer,	5,00
For the second best do.,	4,00
For the third best do.,	3,00
For the best two years old Milch Heifer,	5,00
For the second best do.,	4,00
For the third best do.,	3,00

Competitors for Premiums on Milch Cows, and Milch Heifers, will be required to certify in writing, at the time of entry, to the weight of the

milk during the first seven days in June, and the first seven days in September; and to the manner of keeping, and general management. Cows that calve after the first day of June, may be tried at another time.

HEIFERS.

For the best two years old Heifer, intended to be kept for the dairy,	$4,00
For the second best do.,	3,00
For the third best do.,	2,00
For the best yearling Heifer,	3,00
For the second best do.,	2,00
For the third best do.,	1,00
For the best Heifer Calf, more than four months old,	3,00
For the second best do.,	2,00
For the third best do.,	1,00
For the best Heifer Calf, more than four months old, raised by hand,	3,00
For the second best do.,	2,00
For the third best do.,	1,00

WORKING OXEN.

For the best pair of Working Oxen,	$6.00
For the second best do.,	5,00
For the third best do.,	4,00
For the fourth best do.,	3,00
For the fifth best do.,	2,00

STEERS.

For the best pair of three years old Steers,	$4,00
For the second best do.,	3,00
For the third best do.,	2,00

The three years old Steers will be attached to carts, and tried like the Oxen, on the same ground, the cart and load to weigh two thousand pounds.

For the best pair of two years old Steers,	$3,00
For the second best do.,	2,50
For the third best do.,	2,00
For the best pair of yearling Steers,	3,00
For the second best do.,	2,00

For the third best do.,	$1,00
For the best pair of Steer Calves,	5,00
For the second best do.,	3,00
For the third best do.,	2,00
For the fourth best do.,	1,00

TRAINED STEERS.

For the best trained pair of Steers, less than three years old,	$3,00
For the second best do.,	2,00

FAT CATTLE.

The entries of Fat Cattle must specify the mode of fattening.

For the best fat Ox, having regard to expense of feeding	$8,00
For the second best do.,	5,00
For the third best do.,	3,00
For the best fat Cow,	6,00
For the second best do.,	3,00
For the third best do.,	2,00
For the best fat three years old Steer,	6,00
For the second best do.,	4,00

SWINE.

For the best Boar, more than one year old,	$4,00
For the second best do.,	3,00
For the best Boar, less than one year old,	2,00
For the best fat Hog, more than eight months old,	4,00
For the second best do.,	3,00
For the third best do.,	2,00
For the best fat Pig, less than eight months old,	3,00
For the second best do.,	2,00
For the third best do.,	1,00
For the best breeding Sow,	3,00
For the second best do.,	2,00
For the third best do.,	1,00
For the best weaned Pigs, not less than four,	2,00
For the second best do.,	1,50
For the third best do.,	1,00

HORSES AND COLTS.

For the best Stallion,	$6,00
For the second best do.,	3,00
For the best pair of Draught Horses or Mules,	6,00
For the second do.,	4,00
For the best Draught Horse,	5,00
For the second best do.,	3,00
For the best Breeding Mare,	5,00
For the second best do.,	3,00
For the best three years old Stallion,	3,00
For the second best do.,	2,00
For the best three years old Gelding,	3,00
For the second best do.,	2,00
For the best three years old Filly,	3,00
For the second best do.,	2,00
For the best two years old Stallion,	3,00
For the second best do.,	2,00
For the best two years old Gelding,	3,00
For the second best do.,	2,00
For the best two years old Filly,	3,00
For the second best do.,	2,00
For the best yearling Colt,	3,00
For the second best do.,	2,00
For the best Colt, three to six months old,	3,00
For the second best do.,	2,00
For the third best do.,	1,00

SHEEP.

For the best flock of Sheep, not less than six, owned by one person,	$4,00
For the second best do.,	2,00
For the best Cosset Sheep,	2,00
For the second best do.,	1,00
For the third best do.,	,50

POULTRY.

For the best dung-hill Fowls, not less than six,	$2,00
For the second best do.,	1,00
For the third best do.,	,50

For the best Turkeys, not less than six,	$2,00
For the second best do.,	1,00
For the third best do.,	,50
For the best Geese, not less than six,	1,00
For the best Ducks, not less than six,	1,00

PLOWING MATCH.

All entries for Plowing must be made on or before the Saturday previous to the exhibition.

DOUBLE TEAMS.

For the best Plowing,	$8,00
For the second best do.,	6,00
For the third best do.,	4,00
For the fourth best do.,	2,00

SINGLE TEAMS.

For the best Plowing,	8,00
For the second best do.,	6,00
For the third best do.,	4,00
For the fourth best do.,	2,00

HORSE OR MULE TEAMS.

For the best Plowing,	8,00
For the second best do.,	6,00
For the third best do.,	4,00
For the fourth best do.,	2,00

In all cases where a Premium may be awarded to teams for Drawing, if driven by a Minor—or in Plowing, if the Plow is managed by a Minor—said Minor shall be entitled to a gratuity equal to fifty per cent. of the Premium. Unnatural speed will not be considered meritorious.

CROPS.

All entries for Premiums on *sowed Grains* must be made with the Secretary, on or before July 1st. All others on or before August 1st. Immediately after those dates the Secretary will transmit to all competitors a copy of the blank form adopted by the Trustees.

These forms must be returned to the Secretary on or before Nov. 10th, with each question concerning the crop answered, and the certificates properly signed.

No person will be allowed to compete for more than one Premium, with a crop raised upon the same field, however large, with the same treatment.

The Committee may award gratuities for valuable new varieties of grain.

For the most profitable acre of Corn, (of any variety) the product to be not less than 22 pounds of shelled Corn to the square rod when weighed by the Committee, -	$6,00
For the second best do., - - -	4,00
For the third best do., - - - -	3,00
For the fourth best do., - - -	2,00
For the variety of Corn best adapted to our soil and climate,	3,00
For the most profitable acre of Wheat, not less than 1200 pounds of grain, - - - -	4,00
For the second best do., - - -	3,00
For the third best do., - . - -	2,00
For the most profitable acre of Rye, not less than 1200 pounds of grain, - - - -	3,00
For the second best do., - - - -	2,00
For the most profitable acre of Barley, not less than 1200 pounds of grain, - - -	3,00
For the second best do., - - - -	2,00
For the most profitable acre of Oats, not less than 1200 pounds of grain - - - -	3,00
For the second best do., - . - -	2,00
For the best half bushel of Herds-grass Seed, -	2,00
For the second best do., - - - -	1,00
For the best half bushel of Red-Top Seed, - -	2,00
For the second best do., - - -	1,00

The Grass Seeds to be exhibited at the show.

For the most profitable eighth of an acre of Cabbages,	$2,00
For the second best do., - - -	1,00
For the most profitable eighth of an acre of White Beans,	2,00
For the second best do., - - . -	1,00
For the most profitable half acre of Potatoes, not less than 6000 pounds, - - - -	4,00
For the second best do., - - - -	3,00
For the most profitable eighth of an acre of Carrots, not less than 5500 pounds, - - -	4,00
For the second best do., - - - -	3,00
For the most profitable eighth of an acre of Onions, not less than 2000 pounds, - - -	3,00
For the second best do., - - - -	2,00
For the most profitable eighth of an acre of Sugar Beet, without limit as to quantity, - - -	2,00
For the second best do., - - - -	1,00
For the most profitable eighth of an acre of Mangold Wurtzel,	2,00
For the second best do., - - -	1,00
For the most profitable eighth of an acre of English Turnips,	3,00
For the second best do., - - -	2,00
For the most profitable eighth of an acre of any other variety of Turnips, - - - -	3,00
For the second best, do., - - -	200

WINTER MANAGEMENT OF STOCK.

Entries may be made any time during the present winter.

For the best winter management of Stock, - -	$5,00
For the second best do., - - -	3,00

FARMS.

All competitors must make their entries on or before the first day of May. Each farm will be open to the inspection of the Committee on Farms during the entire season. A detailed statement of the general management, together with the income and expenses for the year, must be furnished on or before November 10th.

For the best cultivated and managed Farm, - -	$15,00
For the second best do., - - -	8,00

GARDENS.

Entries must be made on or before June 1st.

For the best Kitchen Garden, - - -	$5,00
For the second best do., - - -	3,00

EXPERIMENTS.

MANURES AND CULTIVATION.

All entries must be made on or before July 1st, and a statement furnished on or before November 10th.

For the best experiment in testing the value of different kinds of manure, on not less than one acre of ground, as compared with each other, and with no manure; the crop to be a cultivated one, - - -	$5,00
For the second best do., - - -	3,00
For the best Experiment in raising Potatoes, upon not less than one acre of land, the whole to be manured alike,	4,00
For the second best do., - - - -	2,00
For the best Experiment in raising mixed crops, upon not less than half an acre, - - -	3,00
For the second best do., - - - -	2,00
For the best Experiment in raising Millet, - -	3,00
For the second best do., - - - -	2,00
For the best Experiment in raising Cranberries, upon not less than one-fourth of an acre, - -	5,00
For the best Experiments showing the effects of the artificial drainage of uplands, - - -	5,00
For the second best do., - - -	3,00
For the best Experiment in sub-soil Plowing, - -	2,00
For the best Experiment in raising Sweet Potatoes, -	1,00

FEEDING STOCK.

All entries must be made one week previous to commencing the experiment, and statements furnished on or before November 10th.

For the best Experiment in feeding Neat Stock, - -	$4,00

For the second best do.,	$2,00
For the best Experiment in feeding Swine,	3,00
For the second best do.,	2,00

KEEPING POULTRY.

Entries to be made on or before August 1st, and statements furnished on or before November 10th.

For the best Experiment in keeping Poultry,	$2,00
For the second best do.,	1,00

FRUITS AND FLOWERS.

No article intended for the hall will be entitled to a Premium, unless it shall have been deposited by 1 o'clock, P. M., on the first day of the exhibition, from which time the hall will be occupied by the Committees exclusively, for the remainder of the day and evening. All articles must have been grown, manufactured or produced by the person entering the same for Premium.

APPLES.

For the best and largest exhibition of named varieties, of three specimens each,	$4,00
For the second best do.,	3,00
For the best twelve varieties, of five specimens each,	3,00
For the second best do.,	2,00
For the third best do.,	1,00
For the best six varieties, of five specimens each,	2,00
For the second best do.,	1,50
For the third best do.,	1,00
For the best three varieties, of ten specimens each,	1,50
For the second best do.,	1,00
For the third best do.,	,50
For the best dish or basket, of any variety,	1,50
For the second best do.,	1,00

No person will be allowed to compete for a Premium in more than one of the above classes, with the same specimens of fruit.

PEARS.

For the best and largest exhibition of named varieties, of three specimens each,	$4,00
For the second best do.,	3,00
For the best twelve varieties, of five specimens each,	3,00
For the second best do.,	2,00
For the third best do.,	1,00
For the best six varieties, of five specimens each,	2,00
For the second best do.,	1,50
For the third best do.,	1,00
For the best three varieties, of ten specimens each,	1,50
For the second best do.,	1,00
For the third best do.,	,50
For the best dish or basket of any variety,	1,50
For the second best do.,	1,00

No person will be allowed to compete for a Premium in more than one of the above classes, with the same specimens of fruit.

PEACHES.

For the best collection,	$3,00
For the best dish or basket,	2,00
For the second best do.,	1,00
For the third best do.,	,50

PLUMS.

For the best collection,	$2,00
For the best plate,	1,00
For the second best do.,	,50

QUINCES.

For the best dish or basket,	$1,00
For the second best do.,	,50

GRAPES.

For the best display of Foreign Grapes,	$3,00
For the second best do.,	2,00
For the third best do.,	1,00
For the best display of Native Grapes,	3,00
For the second best do.,	2,00
For the third best do.,	1,00

ASSORTED FRUIT.

For the best dish or basket, - - -	$2,00
For the second best do., - - - -	1,00

FLOWERS.

For the best display of Plants in pots, - -	$2,00
For the second best do., - - - -	1,00
For the best display of cut Flowers, - -	1,00
For the second best do., - - - -	,50

In addition to the above Premiums, there will be placed at the disposal of the Committee for gratuities, . $15,00

VEGETABLES.

For the best collection of Kitchen Vegetables, - -	$3,00
For the second best do., - - -	2,00
For the third best do., - - - -	1,00
For the best collection of Potatoes, one peck of each variety,	2,00
For the second best do., - - - -	1,00
For the third best do., - - -	,50
For the best six Marrow Squashes, - - -	1,00
For the second best do., - - -	,50
For the best six Hubbard Squashes, - - -	1,00
For the second best do., - - -	,50
For the best six Crookneck Squashes, - -	1,00
For the second best do., - - -	,50
For the best six Pumpkins, - - -	,75
For the second best do., - - -	,50
For the best six heads of Cabbage, - - -	,75
For the second best do., - - -	,50
For the best three specimens of Cauliflower, - -	,75
For the second best do., - - -	,50
For the best six stalks Celery, - - -	,75
For the second best do., - - -	,50
For the best peck of Onions, - - -	,75
For the second best do., - - -	,50

For the best peck Turnip Beets,	,75
For the second best do.,	,50
For the best peck of English Turnips,	,50
For the second best do.,	,25
For the best peck of Tomatoes,	,50
For the second best do.,	,25
For the best half peck Field Beans,	,50
For the second best do.,	,25
For the best two quarts of Lima Beans,	,50
For the second best do.,	,25
For the best collection of Seed Corn, in traces,	1,00
For the second best do.,	,75
For the third best do.,	,50
In addition to the above, there will be allowed for gratuities,	10,00

BREAD.

All Bread must have been baked on the Tuesday previous to the exhibition.

For the best loaf of Wheat Bread,	$1,00
For the second best do.,	,50
For the best loaf of unbolted Wheat Bread,	1,00
For the best loaf of bolted Rye Bread,	1,00
For the second best do.,	,50
For the best loaf of Rye and Indian Bread,	1,00
For the second best do.,	,50

BUTTER CHEESE AND PICKLES.

Competitors will be required to furnish a detailed statement in writing of the process of manufacturing these articles.

For the best specimen of Lump Butter, not less than 12 pounds,	$4,00
For the second best do.,	3,00
For the third best do.,	2,00

For the fourth best do., - - - - 1,50
For the fifth best do., - - - 1,00
For the best specimen of Tub Butter, not less than 25 pounds, 3,00
For the second best do., - - - - 2,00
For the best specimen of Cheese, not less than 50 pounds, 2,00
For the second best do., - - - 1,50
For the third best do., - - - - 1,00
For the best jar of Pickles, - - - ,75
For the second best do., - - - - ,50
For the third best do., - - - ,25

HONEY.

For the best specimen of virgin Honey, in the comb, - $2,00
For the second best do., - - - 1,00
For the third best do., - - - - ,50

MECHANICS AND MANUFACTURES.

For the best specimens of Mechanic and Manufactured articles there will be placed at the disposal of the Committee, the sum of $60,00.

FANCY ARTICLES.

For the best specimens of Ladies' Useful and Fancy Articles, of their own Manufacture, including specimens of nice mending and darning, there will be placed at the disposal of the Committee, the sum of - - - $25,00

ORCHARDS.

Competitors must make their entries on or before the 1st day of June, and furnish a detailed statement of the history and management, on or before November 10th.

PEACHES.

For the best Orchard of not less than fifty trees, all to be set out previous to January 1st, 1858, - - $10,00
For the second best do., - - - 5,00

RECLAIMED ORCHARDS.

For the best experiment in reclaiming an old Orchard, either Apple or Pear, - - - - $10,00
For the second best do., - - - 5,00

ESSAYS.

All persons competing for these Premiums must file their Essays with the Secretary on or before the 1st of September. Each Essay is to be marked with a motto or design, and accompanied with a sealed envelope containing a corresponding motto or design, and also the name of the author.

The envelopes of the successful competitors will be opened at the dinner table on the day of the exhibition, immediately upon the announcement of the awards.

For the best Essay on some practical subject connected with Agriculture, deemed worthy of publication in the Society's "Transactions," - - - $8,00
For the second best, do., - - - 4,00

PROSPECTIVE PREMIUMS.

ORCHARDS.

All persons competing for these Premiums, must make their entries on or before the 1st day of June, in the year in which the Premiums are to be awarded, and furnish a detailed statement of the whole management from the time of setting out, on or before November 10th of the same year.

APPLES.

For the best Orchard of not less than fifty trees, all having been set out after January 1st, 1856, to be awarded in 1860, $25,00

For the second best do., - - - - 10,00

PEARS.

For the best Orchard of not less than fifty trees, all having been set out after January 1st, 1856, to be awarded in 1861, $25,00

For the second best do., - - - - 15,00

FOREST TREES.

For the best plantation of any kind of Forest trees, suitable for fuel or timber, raised from the seed, not less than 500 in number, which shall be in the most flourishing condition in the fall of 1863, - - - $25,00

For the second best do., - - - 55,00

For the third best do., - - . - 10,00

Entries are to be made on or before August 1st, 1863, and a detailed statement of the entire management furnished on or before November 10th of the same year.

COMMITTEES APPOINTED.

Farms and Winter Management of Stock.—T. R. Boutelle, of Fitchburg; A. F. Adams, of Fitchburg; Joel Page, of Fitchburg.

Gardens.—J. A. Marshall, of Fitchburg; Cyrus Thurston, of Fitchburg; Daniel Messenger, of Fitchburg.

RULES.

All teams entered for plowing and for draught, must have been owned by the person entering same for at least three months next previous, and the team must be driven, and the plow managed by him or by some one in his employ.

No article for which a Premium has once been awarded by this Society, shall ever compete for another of the same class, except a higher one.

The several Committees will not consider themselves bound by the terms of the above offers, to award a Premium for anything which they shall deem inferior.

Any person to whom a Premium shall have been awarded in consequence of any deception or misrepresentation used by him, shall not only forfeit such Premium, but afterward be incapable of competing for the Society's Premium.

All persons (ladies and minors excepted), not members of the Society, to whom may be awarded a Premium or Premiums amounting to $5,00 or upwards, shall receive a certificate of membership for $5,00, and the balance in cash. If the amount shall be less than $5,00, a deduction of fifty per cent. will be made, unless the individual chooses to make the amount up to that sum, and receive a certificate of membership.

All Premiums not demanded on or before November 30th, will revert to the Society.

CONTENTS.

	PAGE.
Analysis of Premiums and Gratuities awarded,	129
Finances, statement of	130
Introductory,	3
New Members, names of	131
Officers for 1859, list of	132
Premiums, &c., for 1859, list of	133
Report on Bread, Butter, Cheese, &c.,	79
Bulls	26
Colts, two and three years old	25
Colts, yearling and suckling	25
Draught Horses,	22
Essays,	69
Experiments,	48
Fancy Articles,	89
Farms,	91
Fat Cattle,	39
Fruits and Flowers,	85
Grain,	120
Heifers, two and three years old	33
Heifers, yearling and calves,	34
Mechanics and Manufactures,	70
Milch kine,	28
Orchards,	99
Plowing, Double Teams,	12
" Horse and Mule Teams,	20
" Single Teams,	8
Poultry,	44
Root Crops,	111
Sheep,	40
Stallions and Mares,	24

PAGE.

Report on Steers, two and three years old, and trained - 38
Steers, yearling and calves, - - 39
Swine, - - - - 42
Vegetables, - - - 75
Working Oxen, - - - - 21
Statement of Brooks, John Jr., experiment, feeding Cows 50
" " " raising Potatoes 67
" " English Turnips - 115
" " Milch kine - - 29
" " Oats - - - 128
" " Potatoes - - 113
" " Ruta-Bagas - - 116
Carter, Solon, Corn - - 123
" " Wheat - - - 126
Caswell, S. M., Butter - - 83
Chesmore, R. G., Butter - - 84
Crehore, W. A., Cow - - 30
Day, Leonard, Heifer - - - 33
Field, C. C., Orchard - - 104
Fisher, Jabez, English Turnips - - 114
" " Orchards - - 106
Hartwell, Nathaniel, Farm - - 95
Marshall, Abel, English Turnips - 116
" " Experiment, raising Potatoes - 67
Minott, John, Apple Orchard - - 108
" " Pear " - - 110
Nourse, Franklin, Butter - - 83
Page, Joel, Heifer - - - 32
Pratt, Lawrin, Mangold Wurtzel - 118
" " Onions - - - 119
Reed, J. P., Calf - - - 37
" " Cow - - - 31
Smith, Edward, Corn - . 125
Stockwell, Loriston, Barley - - 127
Whitney, Thomas, Corn - - 125
" " Rye - - - 127
Woodward, I. B., Bull - - 27
" " Carrots - - 117

TRANSACTIONS

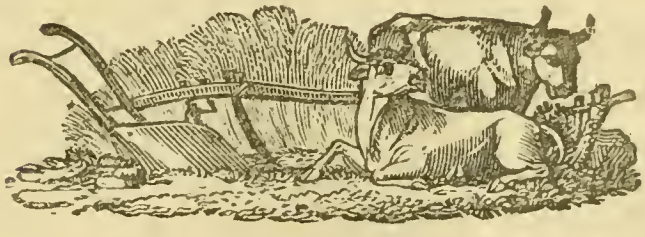
—OF THE—

WORCESTER NORTH

Agricultural Society,

FOR 1859.

PREPARED BY THE SECRETARY.



FITCHBURG:
PRINTED BY E. & J. F. D. GARFIELD,
1859.

INTRODUCTORY.

The Seventh Annual Cattle Show, Plowing Match, Exhibition and Festival of the Worcester North Agricultural Society was observed at Fitchburg, on Thursday and Friday, September 29th and 30th, 1859. The first day of the Show, Thursday, was occupied mostly with the organization of Committees, and the arrangement and examination of articles in the Hall, &c.

The Committees on Vegetables, Fruits, Flowers, Mechanics, Manufactures and Fancy Articles, attended promptly and faithfully to the duties assigned them, on this day, and the Hall was opened to the public through the evening. The show of fruit was larger and better than at any previous exhibition of the Society, and was satisfactory to all concerned. Choice varieties of Apples were displayed in abundance, and the most delicious varieties of Pears in great profusion. Of Grapes, Plums and even Peaches, notwithstanding the unfavorable season for such fruit, there was a creditable display. Of Vegetables, the show was all that could have been expected, both as to quantity and quality. The department of Mechanics and Manufactures was not fully represented, although there were many specimens

on exhibition indicating skill, ingenuity and finished workmanship on the part of the exhibitor. Cannot some method be devised by which the mechanics, manufacturers and artizans of Worcester North and vicinity may be induced to exhibit at our Fair the fruits of their labors so justly celebrated abroad?

The collection of Fancy Articles and other products of the artistic skill and taste of the ladies was extensive, rich, varied and beautiful. Of Bread, Butter, Cheese, Honey and Pickles there was, at least, the usual full and satisfactory supply. The Hall was beautifully ornamented with a great variety of living Plants and Flowers, and an abundance of boquets, many of them exhibiting, in the selection and arrangement of the flowers, proof of the possession, by the contributors, of the most refined and delicate perception of nature's charms.

The weather of Friday was exceedingly fine. It was one of the most agreeable of autumn days; which rendered the attendance from all parts of Worcester North and vicinity unusually large. The first attraction of the day was the plowing at nine o'clock, A. M., on land of A. P. Kimball, the old muster field; and here the strife for victory with *plowshares* was as earnest, exciting and successful as ever that with *swords* and *muskets* in the sham-fights formerly so popular on the same ground. There were four sets of premiums, offered, viz: for single ox teams, single horse teams, double teams, and teams of three horses abreast. Twenty-one teams competed for these premiums in a very animating, although peaceful manner. The plowing generally was well and quickly done.

At ten o'clock the several Committees on Live Stock were organized, and commenced their examinations. The pens for cattle, erected on the common, were densely filled, there being an unusually large number of animals on exhibition ; the quality also was in the main highly satisfactory. The exhibition of Horses, Sheep, Swine and Poultry was good, particularly the latter. The trials of Draught Horses, Working Oxen and Steers, took place as usual near the head of the common, at ten and half-past ten o'clock. In these departments there was a fair show of strength, training and ability for the hard work of the farmers' teams.

At half past twelve o'clock a dinner was served to the society and their guests by Mr. W. F. Day at the Fitchburg Hotel. Immediately after the dinner a public meeting was held in the Lower Town Hall, where the President of the Society, Dr. Fisher, introduced the Hon. George S. Boutwell as one who had risen from the position of a poor boy through successive gradations of Legislator and Chief Magistrate of the Commonwealth, to the rank of a successful Massachusetts farmer. Gov. Boutwell delivered an address upon the Necessities and Duties of Agriculture ; brief, suggestive and practical.

Dr. J. C. Bartlett, of Chelmsford, delegate from the Board of Agriculture was next presented, who spoke in high terms of the exhibition of stock, &c., adding some interesting and instructive remarks upon the general subject of farming.

C. L. Flint, Esq., Secretary of the Board, followed. He urged the importance of frequent market days; explained clearly the advantages which would accrue to the farmer by their observance, and recommended that

intelligent farmers should labor to remove the prejudices of those who have no faith in agricultural exhibitions.

Mr. Leander Wetherell, of the Boston Courier, then spoke in flattering terms of the display of fruit, and urged attention to the importance of the agricultural press, and the necessity of an intelligent consideration of its recommendations. After which the premiums and gratuities awarded by the several committees were announced by the President. These exercises in the Hall, as also those on Thursday evening in the Upper Hall, were interspersed with a variety of songs from a quartette club under the leadership of R. R. Safford.

It will be seen by an accompanying table that the amount of premiums and gratuities paid during the past year was less than that of the year next previous. This is accounted for in part by the fact that several individuals to whom premiums were awarded, generously allowed the funds to which they were thus entitled, to remain in the treasury of the society as a modest donation from them, and partly because that in several departments, as for instance those of Experiments, Gardens, Essays and Mechanics, there either were no entries at all, or not enough to enable the committees to award all the premiums offered. The premiums in these departments alone, for which there was no competition, amount to more than the deficiency in the entire sum disbursed.

The list of premiums in these departments has been carefully revised and enlarged, and it is hoped that the entries for 1860 may be such as to enable the committees to award judiciously a larger proportion of the premiums offered.

While it is thus true that for the first year since the organization of the society there has been no increase in the amount of premiums and gratuities paid, although there has been an annual increase in the amount offered, we are happy to state that more attention has been paid to the diffusion of agricultural knowledge among the members of the society and others, than ever before. Between seven and eight hundred copies of our transactions for 1858 have been freely distributed at an expense for publishing and distribution considerably in advance of that of any previous year.

One hundred and eighty-six bound volumes of "Patent Office Reports on Agriculture," "The Agriculture of Massachusetts," and some other kindred works have been received from various sources; also fifty copies of the transactions of the "Massachusetts Society for Promoting Agriculture" for 1858, and about one hundred pamphlets, most of them containing valuable Essays on various topics connected with agricultural progress. These nearly all have been distributed with some expense and more labor, and in a majority of cases have it is believed, gone into the hands of those who sought them because of their desire to obtain information upon the subjects of which they treat, and who will profit by them. Thus the taste for reading and study upon agricultural subjects is increasing among the members of the society and their families. This is evinced also by the fact that a much greater number of Agricultural publications are taken in the vicinity than ever before.

Would it not be well for the officers of the society to encourage this taste, particularly among the young, by the offer of a larger number of interesting and

instructive books and periodicals, instead of cash premiums?

Would it not also be well to encourage a greater and more active interest in the Exhibitions, on the part of minors, by adopting some method which would tend to induce them to give their attention early to the rearing of poultry, lambs, calves, &c., the training of steers, plowing, the cultivation of vegetables, the smaller fruits, &c., thus creating a love for rural occupations, which may grow with their growth and strengthen with their strength, and enable them to develope in the healthiest and best manner their powers of both mind and body, to be hereafter exercised in promoting the objects of the society and the cause of Agriculture generally?

Less attention has been paid to the distribution of seeds than formerly, and yet nearly one hundred small packages of choice varieties have been distributed. Eleven new members have joined the Society during the year, making the total number who have joined up to the present time, five hundred and thirty-five.

REPORTS OF COMMITTEES.

WINTER MANAGEMENT OF STOCK.

Five gentlemen have favored the Committee appointed for that purpose with an invitation to examine their management, viz: Messrs. John Brooks, Jr., of Princeton, George Chandler, of Shirley, Jabez Fisher, James P. Putnam and Benjamin Safford, of Fitchburg. We have called upon other farmers as we have been in their neighborhood, who kindly received us and showed us their stock, giving us much information in relation to it. The object of this offer of premium seems to direct our inquiries to the manner of expending the crops of the season, and to the returns received; the number and condition of the stock, quantity of manure, the way of keeping and using it, amount of sales, &c. So far as your Committee know, this is something new and well worthy careful attention.

Jan. 26. We first visited by request the establishment of John Brooks, Jr., of Princeton. His stock consists of thirty head of neat cattle, viz: thirteen cows, four two-year-old heifers, three one-year-old do., and five calves, two Devon and two Ayrshire bulls, and two yoke of oxen; ten of the cows are Ayrshire and three

Devons. He has four horses, two colts and two hogs. The weight of hay consumed daily by his neat stock of all ages, averages twenty-two pounds per head. The estimated weight of his crop of hay is sixty-six tons. Feeds five times a day, viz: at six and seven, A. M., and at three, five and nine P. M.; the last time with coarse feed, such as straw and corn fodder. The cattle are let out in the middle of the day and have free access to water in the yard. Considers hay worth eight dollars per ton for feeding out to stock. Gives roots daily to milch cows and calves; thinks turnips worth as much as carrots for that purpose, and if given immediately after milking they give no taste to the milk. Gives corn and cob meal to cows after calving, has used cotton seed meal to a limited extent, and thinks well of it. [See his experiments in feeding milch cows, in the Sixth Annual Report of the Worcester North Agricultural Society.] The hay-mow is cut down with the hay-knife, and a root-cutter rapidly reduces the large roots to dimensions suited to the caliber of the throat of the animal. The cribs and barn floors are daily swept out and kept clean. The droppings from the cattle without litter are let into the barn cellar directly under them, and kept *a year* before being used. The cow-yard is roofed over, ridge-poles extending across twelve or fourteen feet apart, the roofs meeting at an angle and forming troughs, which carry off the water. Muck is spread four or five inches deep over the yard and mixed with the droppings of the cattle. The horse manure is carted out early, before fermentation commences, and laid in small heaps ready for spreading. Raised last season two and one-half acres

of barley, two and one-half of oats, one of corn, three of potatoes and one of turnips. The roots are stored in the barn cellar. Corn is put in racks four feet wide, ten feet long, and six or seven high, made of slats, the bottom six or eight inches from the floor, with spaces between the slats to admit air, and passage ways between the racks. It will be noticed that his neat stock is all blood stock, more or less pure; the cows mostly Ayrshire. By the kind attentions of Mr. Brooks, we visited with him a number of stocks of cattle in Princeton. At the Boylston place we saw forty-three cows in one stable, the stock of Mr. Davis. Mr. W. W. Watson showed us some very fine Durham stock. Mr. Henry Boyles exhibited nine very handsome yearling heifers of mixed blood, and some very good cows. At Maj. Reed's we saw some very good stock. After returning to Mr. Brooks' and pataking of the hospitalities of his house, we went again to the barn to see the "tieing up" and the three o'clock feeding; and then set our faces toward home, being well pleased with what we had seen, and wondering how it happened that any one of the Committee did not stick to farming.

Jan. 31. We examined into the management of Mr. George Chandler, of Shirley. Mr. C.'s profit arises from taking horses and neat stock to keep. He has reduced that business to a system. He is keeping this winter thirty-three horses and three colts, and seventeen head of neat cattle. He feeds both cattle and horses three times a day, viz: at six, A. M., at noon, and just before dark, and waters twice. At noon each horse has poured upon his hay two quarts of corn and cob meal made into dough. Mr. C. says he will keep a

horse fifteen weeks on a ton of hay, with two quarts of corn and cob meal per day, in good condition, *provided he does no work.* Mr. Chandler takes a colt as soon as it is weaned, keeps it until it is four years old for one hundred dollars. He takes a heifer calf a day old and keeps it until it has its first calf, both of which are then returned, and he gets thirty dollars. When the heifer is returned at two years old, with its calf, he gets good pay; if he has to keep her another year, it is rather poor. The barn is seventy feet by thirty. Temporary stalls are put up to accommodate new boarders, and none are turned away. The manure is shovelled into the barn cellar, where it is spread about and two hogs work upon it. In the spring it is carted out and mixed with an equal quantity of loam, laid in a mass two and a half or three feet deep, worked over with a plow twice, and after haying a part of it is spread upon his mowing, twenty loads (five cords) to the acre, or if used for corn, as a part of it is, it is at the rate of sixty loads to the acre. When he plants corn he manures high, and lays down to grass the next year, without manure; his object being to raise hay.

We had the pleasure of calling upon Col. Whitney, of Shirley, who very politely showed us his stock of milch cows, fifteen in number, and informed us about his "management." He feeds six times a day, twice in the morning, twice at noon and twice at night. Gives oil meal once a day made into swill with water. Lets his clover stand until well ripened, and feeds it to his cows. Gets at this time thirteen cans of milk per day from his fifteen cows. Keeps them in the stable all the time in winter, only letting them out to water.

Mr. Nathan Holden, of Shirley, has eight cows now in milk which yield eight cans of milk per day. Feeds out, besides hay, one quart of oil meal in swill, and one quart of corn and cob meal per day to each cow. Barn fifty-eight feet by thirty-eight. His cows are grade Alderney, Durham and Native. Loam is drawn to the barn in the fall, and in the winter is spread for litter in the cow stable, designing to have as much loam as there may be of the droppings of the cattle, the whole is shovelled into the cellar, which is capacious, when there is much of a pile it is worked over and thrown back into a heap, and carried to the field by sledding in the last of winter.

Feb. 4. Called upon Hon. Jabez Fisher, of Fitchburg; he being absent, his stock and management were made known to us by his intelligent overseer. Stock consists of three cows, one yearling heifer, one calf, one cosset, one pair of mules and one horse. One of the cows is Native, with a trace of Durham; the rest are grade Durham and Ayrshire. Feeds corn stalks or butts in the morning. Cuts no feed this year, thinks cutting does not pay. The second feeding in the morning at seven or eight o'clock is with hay, third feeding with hay at noon, hay again at milking time, afterwards corn fodder. Gives a cow a peck of carrots per day, no meal until about calving time; then gives corn and cob and bean meal, three bushels of ears of corn and one of beans ground together, two quarts a day to a cow in warm water. Cows and hens eat bean meal readily; horses, mules and hogs will not. His bean and pea straw is well saved and fed to cows, and is readily eaten. The two mules take, besides hay, three quarts corn and cob

meal together per day, no more. Has five hogs, one of them is a Suffolk boar; feeds them with swill night and morning, and with ears of corn at noon. Keeps eighty hens, gives them a pailful of bean, corn and cob meal, and four quarts of corn daily. The barn cellar is made water-tight, receives the droppings from the stalls, solid and liquid; water is pumped in, and the manure is applied in a liquid state, carted out in a sort of cask with wheels attached, and used by means of a flexible tube.

We next called upon Mr. B. Safford, of Fitchburg. His stock consists of three cows, two milch heifers coming three years old, two heifers two years coming, not yet in milk, two cossets, hens and turkeys. Feeds five times a day, viz: twice in the morning, once at noon and twice at night. First in the morning, corn fodder; second, hay; corn fodder at noon, corn fodder first at night, hay last. Gives no grain in winter. Gets now from two cows one can of milk a day. His cows are let out during the forenoon in pleasant weather, when cold are kept in. His way of curing his clover is to mow it in the morning after the dew has dried off, let it lie in the swath until three or four o'clock, P. M., turns it, on the next day before noon pitches it into cocks and puts on the caps; after two or three days turns the cocks bottom upwards, and after a day or two more carts in and mows away, with a little salt. Salts all his hay when he puts it in the barn. Cuts his corn butts, nothing else, except for the horse when worked. Cows eat readily corn stalks that are black and mouldy, when they will reject those that are well dried, fresh and bright.

Same day called upon Mr. James P. Putnam, of Fitchburg. He has twenty head of neat stock, six are cows and fourteen are young cattle, five horses and three hogs. Feeds six times a day; three times in the morning and three times at night. He formerly gave his work horses cut feed, now gives them dry hay and dry corn and cob meal, two quarts only of the meal to a horse morning and night, and a peck of carrots at noon, and thinks they do as well. Mixes barley straw and hay for neat cattle, which they eat well. The horse dung goes into the cellar where the hogs lie upon it and work it over. The droppings from the neat stock fall into the cellar which is open to the south the length of the barn; the bottom is covered in the fall with loam five or six inches deep, this with the litter of the barn, is worked over with the manure, and in the spring carried to the field for use. High in the barn, six or eight feet below the ridge-pole, a floor of slats four or five inches wide is laid, with spaces between to admit air; this is used to set corn stalks upon, after they have remained in the field two days after cutting. The air circulating between the slats dries the stalks without souring. Cattle eat them readily.

Your Committee have found many excellent ways in the management of each one of the gentlemen who invited their inspection. Each one has regular and stated times for feeding stock, and a regular system of rotation in the kinds of feed. Nearly all keep their neat stock in the barn, except a short time in the middle of the day in mild weather. Some use their coarse feed, such as straw and corn fodder in the morning, first feeding; most of them use it at night,

for the last. One keeps his stable manure a year before using it; one other, whose fields are near the barn, uses his in a liquid state, the others mix up and use for the crops of the next summer. All of them keep or prefer to keep their manure under cover, with some way to save liquid as well as solid. It is well to know all these facts, that observations and comparisons may be made by all who desire to adopt the best way.

Your Committee recommend the first premium
to George Chandler, of Shirley, $5,00
The second to John Brooks, Jr., of Princeton, 3,00

T. R. BOUTELLE,
For the Committee.

EXPERIMENTS.

The Committee on Experiments are sorry to report that while the Society offer $54 in nineteen premiums, there has been but one entry made, that by John Brooks, Jr., Esq., of Princeton, which is an experiment in feeding neat stock; and we regret that this entry was not made in season to entitle him to a premium under the rules of the Society. But we here present the statement of Mr. Brooks, and recommend it to the consideration of all who keep, or ever expect to keep any neat stock; and if future trials shall substantiate the facts that Mr. Brooks proves by his experiment thus far, the value of this discovery can hardly be estimated.

And since by experimenting much useful knowledge is yet to be attained, permit us here to suggest the propriety of offering larger premiums for experiments, as the small sums heretofore offered have not been an inducement for competition, for the Yankee reason, "that we are not sure that it will pay." But in conclusion your Committee recommend a gratuity of $4 (equal to the first premium) to be paid to John Brooks, Jr., of Princeton, for his experiment in feeding stock.

All of which is respectfully submitted,

THOMAS BILLINGS, *Chairman.*

JOHN BROOKS, JR'S STATEMENT.

FEEDING DEVONS AND AYRSHIRES.

Last winter, having some leisure time, I thought I would try some experiments; among them is the following, in feeding neat stock, showing the difference in the expense of keeping Devons and Ayrshires. I find considerable difference, viz: 100 lbs. live weight of Devons eat $2\frac{10}{100}$ lbs. of hay daily; 100 lbs. live weight of Ayrshires eat $2\frac{86}{100}$ lbs. of hay daily; $\frac{76}{100}$ lbs. or more than one-third more than the Devons.

The stock I fed were four last season's calves, two Ayrshires and two Devons, one year old this spring, very near the same age, and were fed alike in every particular. They were fed two different times, ten days at each time. I weighed the cattle every day, also the hay that they consumed.

The Devons gained in flesh			the first	ten days,	34 lbs.
The Ayrshires	"	"	"	"	20 "
The Devons	"	"	second	"	29 "
The Ayrshires	"	"	"	"	20 "

The Devons look the best, plump and in better flesh than the Ayrshires.

I think that in New England, where we have poor pastures and get our hay by the *sweat of our brow*, we had better turn our attention to raising Devons in preference to any other stock. The cows will make as much butter as the Ayrshires, but do not give so much milk, about one-fourth less. For oxen they cannot be beat—quick and easy to be taught. The difference then is in the one-fourth more skim milk that you get from the Ayrshires to pay the one-thire more that it cost to keep them.

FARMS.

Two farms only have been entered for our Society's premiums the present year, viz: the farm of Nathaniel Hartwell, of Shirley, and Elm Dale farm, owned and occupied by Lemuel Pitts, of Lunenburg. June 29th, which proved to be the hottest day of the season, your Committee, according to previous agreement, examined these two farms. Firstly, we went with Mr. Hartwell over his premises, and saw evidence of judicious and persevering labor, with a skilful use of the means at his command to save and apply the home made fertilizers, which undoubtedly are altogether most to be relied upon. One essential defect, however, in his appointments is in the deficiency of swine, there being only one in the pen. No one who has land to cultivate can

afford to dispense with their labor in the work of converting everything submitted to them into that which is so much wanted in the field. Mr. Hartwell deserves much commendation for the improvements he has made in bringing a rough, rocky and unproductive farm into a very good condition. As this place was entered for premium last year, examined by the Committee, and a full report made, which was published in the "transactions," together with a "statement" by Mr. H., it seems unnecessary for the present Committee to go into details; and as a gratuity was awarded equal to the second premium, and deeming it not yet entitled to a first, the present Committee decided that their duties with regard to it were finished.

We then went to Elm Dale farm, where we arrived a little before twelve o'clock. After having been most hospitably entertained, we commenced under a scorching sun, the mercury at ninety-five, our walk over the farm, under the guidance of Mr. Pitts and his two sons, eighteen and sixteen years of age, to whom Mr. P. gives credit for most of the work. The farm consists of about seventy acres. The crops now growing are four acres of corn between young apple trees and peach trees, these standing in alternate rows. Corn and apple trees look well; the trees are washed every third year with a solution of potash, one pound to three gallons water. Peach trees suffered from the intensity of the cold of last winter, the thermometer in this vicinity indicating on one morning, twenty-five below zero. One acre of wheat, three-fourths of an acre of potatoes, one-fourth of an acre of cucumbers for the seed, one acre of carrots, likewise carrots for seed, a quantity

of young asparagus for the roots, an acre of early peas raised for seed. Some peas and potatoes growing together; thinks he gets nearly as many peas with potatoes as without, and a fair crop of potatoes besides. [For an account of the improvements by draining, &c., made since the farm has been in Mr. P.'s hands, see his "statement."] His success, not having been bred to farming, confirms the truth of the remark often made, that mechanics and others bred to business which requires *thought*, make the best of farmers, when they turn their attention in that direction.

His buildings are well arranged, a house spacious and convenient, well supplied with water, a wood-house, carriage and tool-house conveniently situated, and, what too few house-holders have, an ice house, which is built with little expense, and filled in winter when time can well be spared. The barn stands high from the ground, and though it is on level land, has room under one-half of it for the stable manure and the swine, of which he keeps a number at work, and for a shelter for the cattle; under the other half is a cellar, the floor and walls of which are laid in cement, smooth and tight, with windows enough for ventilation when the weather is suitable. This is used for the storage of fruit and vegetables until the state of the market invites their transportation. The profits of this farm are not, it will be perceived, entirely, or perhaps mainly, from the usual sources, and in the usual ways. For instance, an acre of early peas for seed, yielding perhaps thirty bushels, and sold for eight dollars per bushel, the cost of cultivation less than that of as much land in corn, and the pay received for them, three or four times greater. Carrots

and turnips stored in barrels with a little loam or sand, waiting for the market, are kept in the cool barn cellar where the temperature is much of the time but just above freezing. In this way they are kept fresh until warm weather, if not wanted before. The wet lands he is improving by means of drains, of which there was much need, and still is to some extent.

Sept. 26. Two of the Committee went over Elm Dale farm again. Found Mr. P. with his help, at work laying a drain to carry off the surface water from about the buildings to the main drain. Ditch two and a half to three feet deep, a culvert at bottom covered with stones broad enough to span some ten inches; fill up partly with cobble stones, then some coarse stuff, such as brakes, weeds, &c., and cover up with loam. The peas had been harvested, about thirty bushels, and a crop of turnips growing upon the same ground. Corn looks well for this season; the severe frost of the fifteenth inst. having been less severe in that immediate vicinity than in any other place noticed by us, much of it is quite fresh and green. Barn well filled with hay, got in in good condition. We noticed the tools were of the best kind, and every thing in place. The mowing machine and horse-rake were there. [For a particular account of crops and expenses we refer to his "statement" and account kept with the farm by Mr. Pitts.] We earnestly invite the attention of every farmer to this account, kept in a regular, business-like way. If every one would adopt and carry out this plan, how many would abandon some modes of cultivation, or some crops, which have been *supposed* to be profitable, but which the account might prove to have been far other-

wise. Impressions are often erroneous, facts and figures are wanted to confirm or confute them. Open an account with every field and crop, noting down, in a book to be kept, every item of expenditure, whether of labor, manure, seed, or anything else, depth of plowing, time of planting, &c., and credit the crop, and see on which side lies the balance. A regular system of putting down *every evening*, an account of the work of the day, takes but little time, and soon becomes a habit, and then is attended to as a matter of course; and at the end of a year, or a series of years, you have a mass of facts by which you may profit, and of which you may be proud. Let no sleep visit your eyes any evening until the account is fair in the book.

We would congratulate our brother farmers upon the improvements which have been made, and which are constantly being made in agricultural affairs, particularly in the implements at our command, and in saving and using manures. No man now can pretend to good management without a barn cellar for the saving of solids and liquids, without exposure to wind and rain, which would dissipate by evaporation and leaching the best part of the fertilizing properties of the manure. The importance of using to the best advantage every waste article which can be decomposed in the compost heap is becoming more and more apparent. If more Yankee shrewdness were brought to bear upon this point, there would be less disappointment in regard to crops. Then in using manures, are they not often covered too deep? Take a quantity of the liquid which has leached from your dung heap, thick and strong, and let it leach through eight or ten inches of sand or soil,

and you get water clear as that from the brook; all the fertilizing parts having been retained in the eight or ten inches of soil in the leach tub. Being satisfied that this is true, would it not be wise to leave the manure near the surface, to be dissolved and carried down by the rains? Plow deep, save all your manure, and leave it near the surface of the field.

T. R. BOUTELLE, *Chairman.*

MR. LEMUEL PITTS' STATEMENT.

FARMS.

The farm I offer for your consideration I bought in the spring of 1854, and commenced operations about the 20th of April. My former business having been in Boston during the past twenty-five years, I consequently came entirely ignorant of farming operations; I thought as most city people do, "that any fool could make a farmer." But I found myself much mistaken before the first season was over. My greatest object in purchasing a farm was for the benefit of my family, particularly my boys, and my expectations have been realized, they have done much better than I expected for boys brought up in the city.

The farm contains sixty-nine acres of naturally good land, but had been owned by a physician some eight years or more, who did not prescribe much nourishment; consequently it was somewhat reduced under his treatment. The year previous to my purchase, it only produced sixteen tons of hay. It is divided into pasture, mowing and tillage, say thirty-five acres pasture, twenty-

two mowing, and twelve in tillage. The grass lands have not been improved so much as I should like, owing to my attention being turned to the cultivation of an orchard. I think that is of the first importance in farming, get a good orchard started and take care of it, and it will be sure to pay. After the first year we have set out about two acres each year to apple and peach trees, and now have six acres covered, and we think they look well. I intend to increase my orchard two acres a year for several years to come, by so doing the outlay will not be felt so much as though it was done all at once. The soil on a portion of my farm is cold and heavy, with a clay sub-soil, which retains the water until late in the spring; consequently I find a great increase in its productiveness by under-draining, which is done yearly as we have opportunity. We drain from twenty to thirty rods per year, and intend to continue as fast as we can without going into extra expense.

Our mode of cultivation in field crops is as follows: we turn over our grass ground, say three or four acres in the spring and plant on top the sod with potatoes, using guano and plaster in the drill, from three to four hundred pounds per acre, and generally have had good success; the quality of the potatoes much better than those planted on stable manure. The second year we spread on from twenty-five to thirty loads of manure, and plant with corn, using a compost manure in the hill. The third year seed down with spring grain; by so doing I go through with all my tillage land except the orchard in about six years. The young orchard I keep plowed, and get crops enough off to pay the expense. The year previous to setting out my trees I manure

high, but after that I use very little. Our stock consists of six cows, grade Ayrshire and Devon, one yoke of oxen, two horses, eight or ten head of young cattle, and five hogs. The last named gentlemen I keep more for their services under the barn, than I do for the profit of the pork. I keep them well supplied with loam and anything which we can get for an assortment. The cows and oxen are stalled nights during the summer, and make almost as much manure as in winter. Our fruit crop being very small this year, is unfortunate for me; I am fearful when I foot up this year's doings the balance will come on the wrong side.

My peaches and grapes have averaged about four hundred dollar per year; this year they failed entirely. The labor has been done by myself and two sons, one eighteen the other sixteeen years old, and one man seven months, with a small amount of extra labor during the haying season. Below you have my statement of the products and expenses as near as I can estimate them.

Elm Dale Farm, in Account with L. Pitts.

1859.	Dr.	
Interest on land,	$240,00	
1 man, 7 months, at $16,	112,00	
Boarding man 7 months, at $10,	70,00	
Stable manure,	25,00	
Guano,	47,50	
Super-phosphate of lime,	30,00	
Plaster,	4,50	
Taxes,	32,40	
Use of tools and blacksmithing,	50,00	
Seeds, all kinds,	50,00	
Extra labor at haying,	42,75	
		$704,15

CONTRA.

Hay crop 35 tons, at $15, - - -	$525,00	
Corn fodder, - - - -	20,00	
Wheat straw, - - - -	10,00	
25 bushels Wheat, at $1,50, - -	37,50	
138 do. Corn, at $1,10, - - -	151,80	
5 do. Beans, - - -	10,00	
21 do. Early Seed Peas, at $8,00, - -	168,00	
7 do. Marrow Seed Peas, at $6, -	42,00	
120 do. Carrots, at 25 cents, - -	30,00	
75 barrels Carrots, at $2,00, - -	150,00	
307 bushels Potatoes, at 50 cents, - -	153,50	
20 do., do., small, at 25 cents, -	5,00	
35 barrels Apples, at $2,50, - - -	87,50	
Pumpkins and Squashes, - - -	15,00	
Beets and Parsnips, - - - -	10,00	
Product of Dairy, Milk and Butter, Calves, Growth on Hogs, &c., - - -	240,00	
Pasturing Cows, - - - -	21,00	
1 Colt, Foal, - - - -	25,00	
40 lbs. Cucumber Seed, at 75 cents, - -	30,00	
20 lbs. Carrot Seed, - - -	15,00	
Turnip Seed, - - - -	3,00	
Asparagras Roots, - - -	15,00	
Turnips, - - - - -	10,00	
Cider, - - - - -	9,00	
Produce sold, - - - -	97,44	
Labor done off the Farm, self and team, -	205,50	
Improvements, Draining and Ditching, &c., Growth on young Trees, - - - -	233,00	— 2319,24
Balance in favor of Farm, - -		$1614,99

ORCHARDS.

The only entry for premiums offered for the best peach orchard, was made by Addison Hubbard, of Fitchburg, and we award to him the second premium of five dollars. As will be seen by his statement, the orchard is now ten years old, and has been pruned every year after the method given by Downing. The orchard, standing upon a light soil, the annual growth is only moderate. These two conditions have doubtless contributed to the prolongation of the life of the trees beyond the ordinary time during which the peach, in this locality, is maintained in bearing condition. The trees have still a comparatively healthy look, and with a considerable degree of care may be made to do some service yet.

Our experience teaches us that a more severe pruning is requisite to the continuance of a peach tree through a long life in a healthy condition; and our practise is, every two, three or four years, according to the luxuriance of the tree, in addition to the usual heading in of the young shoots, to cut back the larger limbs, so as to force a growth of young wood from near the center of the tree, and thus prevent that long extention of limbs, destitute of young wood, which is so common. By this means a peach tree may be kept in a healthy and fruitful state for many years. There are instances on record, of trees that have lived for a century, and borne regular crops. This however can only be attained by constant care and attention to the wants of the tree. Excessive growth must be repressed, and the tree be made to branch low, from one to two feet from the

ground, and then such a course of pruning followed up as will keep the whole compact, and always full of young, bearing wood.

Under the head of Reclaimed Orchards, there were three entries. One by Ephraim Graham, of Lunenburg, of an apple orchard, and two by Wm. G. Wyman, of Fitchburg, one an apple, and the other a pear orchard. We award to Ephraim Graham the first premium of $10,00, and to W. G. Wyman for his apple orchard, the second premium of $5,00. We further recommend to W. G. Wyman for his reclaimed pear orchard, a gratuity of $5,00.

The subject of the reclamation of old orchards is one of considerable importance, inasmuch as there are great numbers of old trees all over New England which are bearing apples fit only for the manufacture of cider. A large portion of these trees may be made to pay handsomely for the cost of grafting and the requisite care necessary to bring them into a fruitful condition. If the trunk of a tree is sound, and shows some degree of vigor, it will unquestionably remunerate the owner for the time and labor required to renovate it by grafting and cultivation. A good deal of care however is required in order to prevent the tree from dying in consequence of an excess of well-meant, but often misjudged and misapplied kindness. Many a healthy, vigorous tree, more especially of the pear, has been sacrificed to the want of knowledge on the part of the experimenter.

A judicious plan of proceeding we conceive to be as follows; and in order to more fully comprehend the matter, we will consider but one operation at a time. First, then, we will take up the subject of grafting. It

is generally considered best to graft but about a third of an old tree in any one year, beginning with the topmost branches. This is a very good rule, but liable to some exceptions. If the tree is unthrifty and has made but a trifling amount of wood during the previous season, we would graft half of it at once, and even in some cases we have grafted the whole tree at a time. The object in view should be to cut away so much of the tree as may be necessary to produce a thrifty growth of the scions. If too little is removed, the growth will be weak, and the union imperfect. If too much is cut away, we may get too large a growth, which with certain varieties of the pear, is a result very much more to be feared than the opposite. In the second spring, another third or half, as the case may be, is grafted, and the whole operation completed in the third year.

The effect of thus removing in two or three years all the foliage bearing parts of an old established tree is that of an energetic stimulant. All the powers of the tree are roused to repair the loss sustained, and, in the operation it may be said to renew its youth. It puts forth its energies in making wood freely and rapidly, and assumes almost at once the appearance of a healthy and vigorous tree.

We come next to the treament of what are called 'suckers,' which in the common mode of cleft grafting in the small limbs, make their appearance freely and sometimes in great profusion along the sides of the grafted limb. One plan is, in theory, to remove every one as soon as it shows a leaf: in practice to cut them all out two or three or more times during the season. Another mode is to carefully preserve every leaf until the close

of the growing season, and then, at the time of winter pruning, to cut them all out clean at once. The objection to the first mode is this. The small amount of foliage which the scion possesses in the early part of the season is often insufficient, especially in limbs of some size, to induce that circulation of the sap necessary to maintain and promote growth, and the scion, after making perhaps a good start, languishes and shows only feeble vitality, and makes but an indifferent union with the stock. The objection to the other plan is, that suckers frequently outstrip in vigor the scions themselves, and although under such circumstances the scions may make a good union, yet this growth is less than it would be under different management.

The *best* method that we have found, and one which we invariably adopt after grafting the pear, is this; to let every sucker grow for a length of time depending upon the size of limb, and the vigor of the scion. As soon as the scion has made a good start, or if it hesitates while the suckers start strong, the ends of the latter are to be pinched out so as to stop their elongation and throw more vigor into the former. Once pinching is ordinarily enough, but sometimes it is advisable to attend to it again, or even more than once, if the scion does not make wood satisfactorily. At the winter pruning, all the suckers are to be cut out clean. If it is desirable to get all the growth possible, as in the case of some slow growing varieties, or rare roots that we wish to force, the suckers may be cut out as soon as the graft shews an amount of foliage sufficient to continue a vigorous growth, independent of their assistance. In grafting old apple trees on the large scale, we should

not follow this rule quite as strictly as in the pear, but would content ourselves with going around once in the middle of the season, and pinching out the ends of vigorous suckers, perhaps cutting out some of them entirely. During the second season, and afterward if the scion has made good growth, the suckers may be rubbed out as they appear, or where this is not the case, the suckers may be allowed to grow to some extent, the ends to be pinched out if they detract from the vigor of the scion. Every thing is to be cleanly cut out at the winter pruning.

There is another view in which to look at the matter. If the suckers are cut out at the winter pruning, it acts as a stimulant to the tree; whereas if they are removed as they appear, or at any time during the growing season, the operation acts as a check to its vigor, and in rejuvenating old trees, we need the former rather than the latter influence, in most cases.

The next matter to be considered is the influence of scraping and washing the trunk and larger limbs of old trees at the time of grafting, or subsequently. We have never felt over confident in regard to the value of scraping, of itself, except as a preparation for the application of some wash. If the operation is so performed as to remove simply the mossy and dead portions of the bark, it can of course do no harm, but if it is more carelessly done, so as to mutilate the living bark, it is an absolute injury. The washing of trees may be made useful or otherwise according to the material employed. If dissolved, caustic potash is used, of a strength greater than a pound to a pailful of water, there is much danger of producing an unhealthy condition of the bark, parti-

cularly in young trees, and also in too closely scraped old ones. The bark under such circumstances is apt to take on a reddish hue, and is often scalded, as it is called, upon the sunny side. A much better preparation, and one with which we feel well satisfied, is made by mixing together equal parts of soft soap and fresh cow-dung, to which is added sufficient water to render it easily applicable with a brush. The bark under the application of this mixture assumes a dark green color on young trees, and has a healthy appearance; and a wash of this nature has been found to favor an increase in the size of the trunk or limb to which it is applied. The effect of scraping and washing, so far as they extend, is of the same character as grafting, winter pruning, &c., as it acts as a stimulant to the energies of the tree.

The application of manures or special fertilizers, with or without plowing or cultivation, to old trees at the time of grafting or afterwards, acts also as a stimulant, and in the use of them we should be guided by the condition of the tree. If it be a very unthrifty one, we of course may make applications of this sort much more liberally than if it were in a vigorous and healthy state. We have often noticed one great misconception which people appear to entertain, as shown by the fact that they apply the manure within a circle of perhaps a rod or a rod and a half in diameter; whereas with our ideas of the condition of an old tree, and the way in which it is supplied with nourishment, we should incline to apply nearly the whole of it *outside* of such a circle. As a general rule we do not think it advisable to apply manure until after the tree has been grafted two or

more years, and in fact at all, as long as its growth is satisfactory without.

From the foregoing considerations it will be seen that nearly every operation which is performed in reclaiming old trees is of a highly stimulating character, and when they are all brought to bear at once upon a tree which may perhaps have been entirely neglected and allowed to grow in sward land for many years, the result will too often be of a fatal character. The balance of the tree is destroyed; the new wood which grows late, is not properly ripened and matured to stand the winter. After the scions for one or two years have made an enormous growth, and borne very likely a fine crop, there will be found dead or dying limbs, and often, with the pear especially, the tree lingers out a precarious existence for a year or two longer, and finally dies in consequence of over stimulation.

It is therefore very important that we should not be in too great haste to obtain results. Moderate growth, with health and hardiness, is better than great luxuriance with succulent, tender, and delicate wood. By taking an extra year or two to bring about the conversion of an old tree into a young one, we may preserve its life, with many years of productiveness.

Before taking leave of the subject, we desire to call attention to a kind of grafting, which, although not common yet, has many things to recommend it. We have employed it to some extent, and feel pleased with the result thus far. The plan is this: A limb which carries from a fourth to a half of the foliage of the tree, and which may be of any size even to twelve or more inches in diameter, is sawn carefully off at a foot or two

from the trunk. With a grafting knife, the blade of which for this pnrpose should be from six to eight inches long, a number of splits are made around the edge at right angles to a line of diameter, as if to take off so many chips. From the end of one cut to the end of the next one adjoining, the distance should be from one and a half to two inches, and the chips should have thickness enough to hold two scions firmly. A scion prepared in the ordinary way is then inserted in each end of every split, making in all from four to sixteen according to the size of the stock. All the openings, and that part of the stock outside of them, should be well covered with grafting wax, and the central portion with the shellac solution. Nothing more is done until the next Spring, when a portion of the scions are cut out, as they tend to crowd each other. At the second Spring pruning, one, two or three, as may be thought best, are allowed to remain, and all the rest removed. A second portion of the tree may be grafted a year after the first, but we think it better to have two years interval, if more than one-third is grafted at a time.

The advantages of this mode of grafting are stated to be these: The work is quicker accomplished and requires a less number of scions. When the tree comes into bearing, it is much more compact than where the scions are set at a distance from the centre. This will be found an important item in gathering the fruit. Suckers give next to no trouble, as when the grafting is completed there is nothing left of the old tree above ground, but the trunk. The amount of firewood obtained is frequently sufficient to pay all the expense. The only drawback which we have heard suggested

was, that the healing of the stump is not satisfactory; but we think that a careful attention to keeping the openings covered with wax, and the end of the stump with shellac for a year or two, will obviate any difficulty on that score.

JABEZ FISHER, *Chairman.*

ADDISON HUBBARD'S STATEMENT.

PEACH ORCHARD.

The peach orchard which I offer for premium was set out in the spring of 1849; the trees were one year's growth from the bud. I have headed them in every year since they were set, cutting off at least half of the last year's growth, sometimes three-fourths. The land has been planted every year with potatoes, peas or beans, and manured very light, sometimes putting a few ashes around the trunk of each tree.

The orchard contains the following varieties: Crawford's Early, Coolidge's Favorite, Grosse Mignonne, Red Cheek Melocoton, George IV, Jaque's Rareripe, Early Royal George, Lemon Freestone, Wilder's Seedling and Marshall's Seedling.

EPHRAIM GRAHAM'S STATEMENT.

REDEEMED APPLE ORCHARD.

The reclaimed orchard that I offer for premium consists of about sixty trees; when I first moved to my place in 1839, there was not five barrels of good merchantable apples gathered from the premises, but almost any quantity of cider and other apples might be

found. In 1840 I commenced ingrafting, and continued so to do to a greater or less extent for ten or twelve years. Some of my trees were young and thirfty, others more advanced, and many of them on the decline of life; so much so that I was advised not to undertake to reclaim them—that they were better adapted to firewood than to grow fruit. In 1846 I gathered my first crop of apples, mainly Baldwins, about forty barrels. In 1848 I gathered about sixty barrels, in 1850 seventy-five barrels, and about fifteen barrels of second quality in 1852 some ninety barrels, and fifteen or twenty of second sort, worth half price. In 1854 were gathered from these trees one hundred and twenty-five barrels of first-rate apples, besides some twenty or twenty-five barrels of second quality and cider apples. In 1856, being a sparse year for Baldwins, although the even year, I had only sixty barrels, and those of meagre quality; in 1858 I gathered from my orchard one hundred and ten barrels, and the present year about forty, as some of my Baldwins of the "odd year" have now commenced bearing. When my trees were transplanted they were "set out" without order or regularity, but "sprinkled" over all parts of the farm; I have been careful to prune my trees every year, or nearly so, and in some instances I am satisfied that the saw and pruning knife have been too freely used; I have not been particular in regard to the season for pruning, but adopted the old adage, "trim when the saw is sharp"; whether January, March, June or November. I have not neglected to use the scraper upon the trunks of my trees in the Spring of the year, after heavy rains, when the old outside bark would easily yield; and perhaps

in some cases this implement has been used to excess. I have frequently washed my trees with a solution of clay and cow manure; whether or not this process had been beneficial I am not able to determine. One of my trees, in particular, I was advised not to renovate on account of size and age, but subsequently was advised so to do by an "old experienced orchardist," Samuel Downing, Esq., of Lexington, to whom I am indebted for many valuable hints and suggestions in relation to renovating an old orchard, as well as in the cultivation of a young one; this suggestion being made on the premises, that the tree would yet produce $100 worth of fruit in its day and generation. I have kept a separate account of the proceeds from this tree since the first year of its bearing: in 1846 it produced four barrels, worth $8,00; in 1848, four barrels worth $8,00; in 1850, five and a half barrels and one of second quality worth $10,50; in 1852, six barrels, and two barrels of second quality worth $10,50; in 1854, seven and a half barrels and two of second quality worth $11,00; in 1856, being the "hard year" for Baldwins, only three barrels worth $10,50; in 1858, five barrels worth $11,00.

When I first commenced the work of improving my orchard I removed the earth from the trunks of the trees and incorporated compost manure; but, reasoning from analogy, I came to the conclusion that this process added about as much to the growth and nourishment of the tree and fruit as it would to put a hungry boy's dinner into his boots; I therefore abandoned this process. As all feeders of the tree lie at no small distance from the trunk, it is well to plow and cultivate orchards

quite frequently and prevent, at least, at intervals, grass and tree roots growing at the same time on the same land.

My process of ingrafting for the last few years on old trees has been to insert one-third of the tree each year, commencing at the top and working downwards until the whole of the tree was completed; thus requiring three years to complete the work. This method is better than any other I have tried for ingrafting old trees, as it gives the young grafts an opportunity of getting well started; cutting off and ingrafting the top first gives the grafts there the best chance, while the necessary pruning of the top throws the sap into the remaining side branches and prepares them for ingrafting the second year; the third year, the lower branches will have been made ready in the same way. As far as I have had observation and experience I am satisfied, especially in ingrafting old trees, that the practice of cutting off all or *nearly* all the limbs the first year, is far from being judicious; by this method there is not sufficient strength in the top to draw the sap from the roots for the growth and nourishment of the young grafts. Hence the first year, by this process, the grafts barely live; the second year they make only slow progress, and by this time the whole tree begins to decline, and in a few years is nearly useless. In 1851 I had five or six trees fast going to decay; so much so that it was doubtful in my mind, as well as in the mind of others, whether they were worth ingrafting. I however commenced the work, in May 1851, in '52, and '53. I cut away the old limbs sparingly, except those that were dead or nearly so; very little was done by way of cut-

ting off either old limbs, or thinning out grafts, till 1858 and '59, when in June '59 the trees were wholly bereft of their old limbs and as many of the new ones as necessary ; the tops are now in a healthy condition. These trees have grown two very good growths of fruit of good quality, one in '56 the other in 58, and give promise of future usefulness.

W. G. WYMAN'S STATEMENT.

RECLAIMED APPLE ORCHARD.

The reclaimed apple orchard which I offer for a premium consists of one hundred and seventy-five trees of various ages, from twenty to eighty years or more, all of nature's own planting; scattered over my fields and pastures, mostly the latter.

A very few of the trees in the fields were grafted when they came into my possession in the spring of 1853, but most of them, and all in the pastures produced only almost worthless varieties of fruit. The trees had no appearance of having ever been trimmed or pruned except by the cattle ; were very croocked and scrubby, and densly filled with sprouts, thorns and dead limbs.

I commenced grafting a few trees in the fields in 1853 and 1854, and in 1855 took hold of the main orchard in earnest, selecting the best trees out of over three hundred, the others furnished good fire wood; and grafting about one-third of the tree, usually at a time, commencing with the top, and so continued for three successive years. The suckers have been carefully pruned out every year, after the season's growth of wood was made.

With the exception of a few trees in the fields which have been well cultivated, manured and scraped, I have not cultivated or manured the orchard thus far, have only grafted and pruned. I propose to put one or two loads swamp-muck to each tree next winter, and the ensuing season one or two bushels ashes; cultivation is impracticable.

The varieties grafted are one hundred and twenty-six Baldwins, thirty Hubbardston Nonesuch, five Roxbury Russet, and fourteen of various other varieties. The expense incured for reclaiming the main orchard has amounted to about $1,00 per tree, and the income nothing to speak of until this year, when I obtained nine barrels of apples, which sold for $27,00.

W. G. WYMAN'S STATEMENT.

RECLAIMED PEAR ORCHARD.

The reclaimed Pear Orchard which I offer for a premium consists of forty trees, thirty of which are, from the best information I can obtain in relation to their history, from eighty-five to ninety years old, the remaining ten are of various ages, from twenty years upward. Most of them have never been cultivated. They produced naturally a small native pear intended originally for perry.

In the spring of 1853, when they came into my possession, I commenced grafting them, cutting off about one-third of the top of each tree. Twenty-three were grafted that season. The next year, 1854, I grafted about one-third of the remaining limbs upon these trees,

and commenced on about half of the remaining trees. In 1855 I continued the process of grafting as in 1854, and commenced on the last and poorest of the trees; in 1856 I finished grafting those first commenced, and continued with the others in nearly the same manner.

Most of the old trees I have manured with about one-third of a cord of swamp-muck and two bushels of ashes each, spread around the trunk of the trees in a circle of about sixteen feet diameter, and have mulched most of these with leaves and brush. Where the soil admitted of it, I have recently plowed around the trees, and am now cultivating nearly one-half of them, including several of the younger trees which have been well cultivated and manured four or five years.

The varieties grafted are the following: Eighteen Bartlett, ten Lawrence, two Urbaniste, two Beurre Superfin, two Beurre d'Anjou, one Flemish Beauty, one Beurre Bosc, one Beurre d'Armburg, one Winter Nelis, one Doyenne Sieulle and one Madeline. The Bartletts commenced bearing the second year after being grafted, and have borne more or less every year since, although the present year the crop was very light, several of the trees having been badly injured by the weather last winter. The other varieties have nearly all commenced bearing.

I am unable to state definitely the expense of reclaiming, or the value of the fruit obtained from the trees, but am convinced that the pears already obtained have been worth double the expense incurred. In 1857, after reserving an abundant supply for my family I sold pears from these trees to the amount of $26,79.

BULLS.

Your Committee on Bulls, before entering upon their duty of awarding premiums, would suggest a few thoughts, perhaps not altogether new to the most observing and reflecting, but by a majority almost entirely overlooked. We take pleasure in speaking of the great improvements which have been made within a few years; and we are confident still more may be expected by bestowing more attention to a combination of good properties in this useful animal.

Your Committee would further suggest, that the Bull has not received his share of attention; we can but hope that the days of false delicacy with reference to this animal have forever passed. Several years of observation and experience has led your Committee to conclude that the great, if not the only considerations in rearing the Bull, are form and color. The questions usually asked are, is he of a good color? has he a good form? While these should not be entirely overlooked, yet other and more important properties should not be neglected. Millions of money have been paid for imported stock when we have as good if not better blood, if properly selected, in our own towns if not in our own barn-yards. Important improvements have been retarded by not seeking a combination of good qualities, which may be easily secured.

The experience of stock raisers of late years, shows the opinions of those of former times to be erroneous when they asserted, that a cow giving a large flow of milk could have but little flesh. Equally absurd is the doctrine that a bull needs *no other* recommendation than

beauty. We would say with *emphasis*, that it is of as much importance that the bull should spring from a race of *good milkers* as the heifer. The heifer calf has frequently been sold at a higher price *because* the dam was superior for milk, but when tested proved altogether of another blood, thus showing conclusively that the stronger has almost, if not altogether absorbed the weaker. Not so with the bull calf when thrown into the market; he is some dear bought or far-fetched Ayrshire, Devon or Jersey, and often poor at that. It is not our purpose to discourage the importation of foreign stock, but to encourage the improvement of stock in general. But we cannot now enter into all the minute points on the subject, but hope the time will soon arrive when the relative importance of the animal we speak for will be better understood, and that he may have less to do in sounding his own HORN.

Your Committee have awarded the premiums as follows:

BLOOD STOCK.

NORTH DEVON.

1st, to Nathan Caswell, of Fitchburg,	$5,00
2d, to Wm. H. Wetherbee, Shirley,	3,00

JERSEY.

1st, to C. C. Field, Leominster,	5,00

GRADE STOCK.

TWO YEARS OLD OR MORE.

1st, to W. W. Watson, Princeton,	5,00
2d, to Joseph Upton, of Fitchburg,	3,00

YEARLINGS.

1st, to Thomas Billings, Lunenburg,	4,00
2d, to Geo. W. Houghton, Princeton,	2,00
3d, to Wyman & Sprague, Westminster,	1,00

CALVES.

1st, to Henry Gipson, Lunenburg,	$4,00
2d, to Nathan Caswell, of Fitchburg,	3,00
3d, to Wm. H. Wetherbee, Shirley,	2,00

Your Committee would further add that John Brooks, Jr., of Princeton, exhibited some fine blood stock, and would have been entitled to premiums had he complied with the rules of the Society.

ANTIPAS MAYNARD, *Chairman.*

WM. H. WETHERBEE'S STATEMENT.

BULLS.

The bull *Poland,* which I offer for premium, is a full-blooded North Devon, fourteen months old, from the superior blood stock owned by Isaiah Wentworth, of the Society of Shakers, E. Poland, Maine. The superiority of this stock is evident from the fact of its having "carried the State," in competition with other importations, for the past few years. *Poland* was received by me when a suckling, and has been "brought up by hand," learning to eat cut hay with a little oil meal and shorts, varied with "soil feed." He has been kept mostly in the barn.

The Bull *Westboro,* which I offer for premium, is seven months old. I purchased him of Dea. White, Superintendant of the State farm, and according to his statement, he is $\frac{15}{16}$ Ayrshire. He was sired by the full-blood bull (Wachusett,) and his dam was 7-8 Ayrshire. I received him when four or five days old, and he has been raised by hand on skimed milk, with a little oil, meal and shorts, hay and grass.

MILCH KINE.

There were twenty-seven cows and ten heifers on exhibition for their superior milking properties, making the show, in the department of milch kine, very satisfactory both as to number and quality; clearly showing that the farmers of Worcester North are fully conscious of the importance of having a good dairy and good dairy stock. On this point perhaps nothing need be said. But there is one subject connected with keeping dairy stock that has not been sufficiently considered by many of our farmers; indeed, some of them seem to have given it no thought whatever. Since convenient communication with the city has been opened by railroad, many have turned their attention to the production of milk; in fact, some make it the chief business of the farm. Now, to all such it is an important question whether, by this process, they are not gradually but surely impoverishing their farms. Can three hundred, five hundred, or a thousand dollars worth of milk be annually carried off from the farm without diminishing the capability of the soil for future production? Certainly not, unless some proportionate quantity of fertilizing material is brought back to it over and above the manure made from milk-giving cows. For it is a well established fact that the droppings from milch cows are much less strong and active than from other stock, and particularly from animals under the process of fattening.

In our eagerness to obtain ample, immediate returns for our labor, we must not forget that the true object of the farmer should be, not to get the largest amount from

the farm at the present time, merely, but to pursue such a system of cultivation that the soil shall, after each successive crop, be left in better condition than before. Under the old method of making butter from the milk and feeding the skimmed milk to swine, there was far less danger of a gradual deterioration of the soil than by the system now under consideration; for, during the growth and fattening of the swine, a large if not an adequate amount of manure would be made ready for application to the land. In Great Britain and on the Continent of Europe, there are large tracts of land that have been under constant cultivation for hundreds of years, and yet, at this very time, the capacity of the soil for production is greater than at any former period. This is brought about by feeding largely of the products of the farm, in hay, roots and grain, to cattle, sheep and swine fattened for the market, thus making their manure more valuable; and also by no inconsiderable annual outlay for the purchase of various fertilizers brought from abroad. Mr. Holbrook, of Brattleboro, one of the best cultivators of the soil in Vermont, thinks the farmer cannot afford to sell any considerable amount of the grain raised on the farm; but that in a succession of years, he will realize the greatest profit by feeding most of his grain crop to his stock, thereby increasing the fertility of the soil by their more enriching manure, depending mainly for his cash returns upon the meat sold in the market. Mr. John Johnston, of Geneva, New York, finds that he cannot keep his land in a sufficiently fertile condition for profitable production of wheat unless he buys largely of oil-meal to feed to his stock, chiefly for the purpose of making more active

manure. The English farmers say they don't understand how their brethren on this side of the Atlantic can afford to export their oil-meal cake. Now, if Mr. Holbrook, of Vermont, an experienced and successful farmer, is convinced that in "the long run" it is better to have most of the grain crop fed to the animals on the farm, besides all the hay and other fodder; if Mr. Johnston, of New York, in the heart of the "Genesee country" is satified that his land needs the fertilizing effect of a large consumption of oil-meal by his stock; and if the English rightly estimate the value of their land by the amount of meat produced for the market, how can we, on this hard New England soil, maintain even, much less *improve*, its productive power if we keep up a constant drain upon its fertility by making milk its chief product, and sending it away to consumers? Let those who are able answer the question. The subject is worthy the serious consideration of all producers of milk.

The Committee award the following premiums:

HERDS.

1st, to N. B. Reed, of Princeton,	$10,00
2d, to John Brooks, Jr., of Princeton,	5,00

MILCH COWS.

1st, to J. P. Reed, of Princeton,	5,00
2d, to W. W. Watson, of Princeton,	4,00
3d, to Alvah Crocker, of Fitchburg,	3,00

THREE YEARS OLD HEIFERS.

1st, to Henry Boyles, of Princeton,	5,00
2d, to W. W. Watson, of Princeton,	4,00
3d, to Daniel Messinger, of Fitchburg,	3,00

TWO YEARS OLD HEIFERS.

1st, to H. M. Caswell, of Fitchburg,	$5,00
2d, to N. B. Reed, of Princeton,	4,00
3d, to Jabez Fisher, of Fitchburg,	3,00

C. C. FIELD, *Chairman.*

N. B. REED'S STATEMENT.

HERD OF COWS.

White Head is mixed breed, nine years old, calved May 4th, 1858, time to calve again March 2d, 1860. Was raised in Sterling. She gave the first seven days in June, two hundred and sixty-one pounds of milk, an average of thirty-seven and one-seventh pounds per day. She gave the first seven days in September, two hundred and eigtheen pounds, an average of thirty-one and one-seventh per day. Her calf is a heifer; am raising it.

White Foot is mixed breed, four years old, calved March 27th, 1859, time to calve again March 12th, 1860. Raised her. Her calf I sold at six weeks old for $10,50. She gave the first seven days in June, two hundred and twenty-three pounds of milk, an average of thirty-one and six-sevenths pounds per day. She gave the first seven days in September, two hundred and eighteen pounds of milk, an average of thirty-one and one-seventh pounds per day.

Beauty is mixed breed, six years old, calved February 2d, 1859, time to calve again March 12th, 1860. Was raised by myself. Her calf I sold at five weeks old for $8 for veal. She gave, the first seven days in June, two hundred and fifty-seven pounds of milk, an average of

thirty-seven and five-sevenths pounds per day. She gave the first seven days in September, one hundred and eighty-six pounds of milk, an average of twenty-seven and four-sevenths pounds per day.

Tumar is mixed breed, five years old, calved February 22d, 1859, is to calve again April 3d, 1860. Was raised in Princeton. Sold her calf at six weeks old for veal for $11. She gave the first seven days in June, two hundred and thirty-three pounds of milk, an average of thirty-three and two-sevenths pounds per day. She gave, the first seven days in September, one hundred and seventy-one pounds of milk, an average of twenty-four and two-sevenths pounds per day.

Danforth Heifer is mixed breed, two years old, calved May 17, 1859, is to calve again May 12th, 1860. Her calf I sold at six weeks old for $10, for veal. She gave the second week in July an average of thirty pounds of milk per day, from which was made six and one-fourth pounds of butter. She gave, the first seven days in September, twenty-four and one-half pounds of milk per day.

The above cows were turned to pasture the 1st of May, and their keeping at either trial was nothing extra.

JOHN BROOKS, JR'S STATEMENT.

HERD OF COWS.

The four cows that I enter for the best herd are as follows, viz:

First, *Donna* is Devon, eight years old, calved April 27th, 1859, bull calf, five months old, weighs three hundred and seventy pounds. She gave, the first seven

days of June, two hundred and five pounds milk; two inches in ten of her morning's, and one and four-fifths inches in ten of her evening's milk was cream. At the above trial her average weight was seven hundred and ninety-one pounds morning, eight hundred and sixty-four pounds evening. She gave, the first seven days of September, one hundred and eighty pounds milk; two and one-fifth inches in ten of her morning's, and one and four-fifths in ten of her evening's milk was cream. At this trial her average weight was eight hundred and forty pounds morning, eight hundred and sixty pounds evening.

Second, *Mary* is one-half Ayrshire, six years old, calved April 4th, 1859. Sold the calf at six weeks old for $7,00. She gave, the first seven days of June, one hundred and ninety-six pounds milk; one and one-fourth of an inch in ten of her morning's, and one and one-tenth of an inch in ten of her evening's milk was cream. At the above trial her average weight was eight hundred and twenty pounds morning, eight hundred and fifty-seven pounds evening. She gave, the first seven days of September, one hundred and ninety pounds milk; one and three-tenths of an inch in ten of her morning's, and one and one-tenth of an inch in ten of her evening's milk was cream at this trial. Her average weight was eight hundred and forty pounds morning, eight hundred and sixty-three pounds evening.

Third, *Flash* is seven-eighths Ayrshire, four years old, calved March 6th, 1859. The calf was worth at six weeks old, for veal, $10. Raised it. She gave, in seven days, from the 9th to the 15th of June, two hundred and eleven and one-half pounds milk; one inch in ten

of her morning's, and nine-tenths of an inch in ten of her evening's milk was cream at the above trial. Her average weight was eight hundred and sixty-four pounds morning, nine hundred and eighteen pounds evening. She gave, the first seven days of September, one hundred and eighty-eight pounds milk; one inch in ten of her morning's, nine-tenths of an inch in ten of her evening's milk was cream at this trial. Her average weight was nine hundred and twenty-one pounds morning, and nine hundred and fifty pounds evening.

Fourth, *Gregory* is one-half Ayrshire, thirteen years old, calved May 20th, 1859. I did not try her milk the first seven days of June. The first seven days of September she gave two hundred and eleven and one-half pounds milk; one and one-half inches in ten of her morning's, and one and three-tenths of an inch in ten of her evening's milk was cream. Her average weight was one thousand one hundred and sixty pounds morning, one thousand one hundred and eighty pounds evening.

The above cows were turned out to pasture the 15th of May, and have had no other keeping since that time until the middle of August, when I turned them out after milking at night into a mowing.

J. P. REED'S STATEMENT.

COW.

The cow which I offer for premium, is eight years old, of the Holderness breed. Dropped her calf on the 5th of August last. I commenced weighing her milk on the

ninth day of the same month, and for the next seven days she gave three hundred and twelve pounds, being an average of forty-four and four-sevenths pounds per day. The first seven days in September she gave an average of forty-two pounds per day. Keeping nothing but pasture feed. Her milk is of the best quality. She has never had any meal, grain or roots. The Society's second premium was awarded me for her last year.

DANIEL MESSINGER'S STATEMENT.

HEIFER.

The three-years-old heifer which I offer for premium, dropped her first calf on the 11th day of last April. Sold the calf at three days old. Have measured her milk from April 15th to September 15th. The result is as follows:

From April 15th, to June 15th, an average of twelve and three-fifths quarts per day. From June 15th to July 1st, twelve quarts per day. From July 1st to July 15th, ten and one-half quarts per day. From July 15th to September 15th, nine and two-fifths quarts per day. The weight of her milk the first week in June, two hundred and fourteen and one-fourth pounds. The first week in September, one hundred and fifty-one and three-fourths pounds. My pasture being quite small and insufficient to pasture one cow, was obliged to feed with hay from the barn, and the last part of the time some corn stalks. I think the quantity of milk would have been much increased had she been turned to good fall feed. From about two weeks previous to her calving to the 15th September, have given her one bushel oats,

and one and one-half bushels wheat and rye bran, at a cost of about three-fourths of a cent per day. The milk very good; seven and seven-eighths quarts, beer measure, to one pound of butter.

JABEZ FISHER'S STATEMENT.

HEIFER.

The milch heifer which I enter for premium, was two years old the first day of May last. Her breed is Durham and Native, in uncertain proportions. She dropped her calf July 7th. She gave, in seven days, commencing July 24th, one hundred and sixty-five and one-fourth pounds of milk, averaging twenty-three and sixty-three one hundredth pounds per day. She gave, in the first seven days of September, one hundred and sixty and one-fourth pounds of milk, averaging twenty-two and eighty-nine one hundredths pounds per day. She was kept in the barn all the time, and fed with hay and such green fodder as the farm would furnish.

HEIFERS.

The Committee on heifers had many difficulties to labor under in the discharge of their duty. The great number of entries, the narrow and crowded state of the space allotted for the stock, together with the universal excellence of specimens on show, made it very difficult to decide upon the merits of the animals. And then, the oft repeated remark, "she has had no extra keeping,

has been kept very short," strikes one with wonder how such animals could be produced, so much out of the way of the most common experience. It certainly seemed as if they had been reared like children by a hard step-mother; especially some of the very largest, and they were not few. Added to all this, but one of the Committee besides the chairman, appeared. With the aid of Mr. Abel Marshall, of Fitchburg, a man who attends to all known duties, we selected and obtained a volunteer. This object being accomplished, we commenced our arduous task of examining the numerous animals. Our task was rendered more difficult by their being scattered from one end of the pens to the other, often mixed with other cattle of different grade; and the owners of many of them having given in their *statement* were off to see the show. We proceeded to select such stock as we judged gave promise of future usefulness as breeders of stock and for the dairy, considering these the prime qualities of excellence, and not mere size, that being only an indication as fitness for the butcher at a proper age. The raising of stock at the present day is a paying business, if properly managed; and I believe that more depends upon the selection of the calf, than the breed, care being taken to raise such ones as will pay for beef, if they fail to be fit for the dairy. It is useless, in my opinion, to be too very particular about names of breeds, or to attempt to follow the fashion of trying to raise blood stock, as that requires too much outlay of money and time for common farmers, but breed from good animals, and raise only the best of any breed, as there are a great many that are not suitable. In raising, during the first ten

or twelve weeks, care should be taken to avoid the extremes of too high or short feeding, but take good care of them for the first year, keeping them in a healthy growth. After that, they will require only ordinary attention.

I have been led to adopt these opinions from the fact that, after all that is said in favor of blood stock, and the attempt of the owners and breeders of it to put down all grade stock, the market-man tells me that it is from them he gets his poorest calves for veal. Under these impressions, and they prevailed in all of the committee, we selected the following as suitable candidates for future usefulness, and recipients of the premiums:

TWO-YEARS-OLD.

1st, to W. W. Watson, Princeton,	$4,00
2d, to Henry Boyles, Princeton,	3,00
3d, to Levi Downe, Fitchburg,	2,00

YEARLINGS.

1st, to Henry Boyles, of Princeton,	3,00
2d, to John Brooks, Jr., Princeton,	2,00
3d, to Nathan Caswell, Fitchburg,	1,00

CALVES.

1st, to Samuel Farwell, Fitchburg,	3,00
2d, to S. M. Caswell, Fitchburg,	2,00
3d, to J. P. Putnam, Fitchburg,	1,00
To Daniel H. Spaulding, for his twin heifers, a gratuity of	2,00
To W. H. Wetherbee, for his two-years-old, a gratuity of	2,00
To Israel Everett, for his two-years-old, a gratuity of	2,00

EZRA KENDALL, *Chairman.*

WORKING OXEN.

The Committee on working oxen respectfully submit the following report:

There were eleven pairs entered, all of which were present. The task was a difficult one to perform and do justice to all, as so many oxen were to be tried and the time for examination so short. The load of four thousand pounds, exclusive of the cart, was not a heavy one for most of the cattle, and therefore, with one or two exceptions, there was but little whipping, and in those cases it was occasioned by the cattle being deficient in backing; with these exceptions the work was performed with quietness, and in a manner highly creditable to the teamsters and very gratifying to the Committee, who were unanimous in awarding the premiums as follows:

1st, to Josiah Page, of Westminster,	$6,00
2d, to Chas. K. Sawyer, of Fitchburg,	5,00
3d, to E. G. Myrick, of Princeton,	4,00
4th, to Joel Page, of Fitchburg,	3,00
5th, to N. B. Reed, of Princeton,	2,00

LUKE WELLINGTON, *Chairman.*

STEERS.

TWO AND THREE-YEARS-OLD AND TRAINED.

The Committee on two and three-years-old and trained steers report that there were six pairs of two-years-old, and five pairs of three-years-old steers entered for pre-

mium, all of which were fine, and did their work well, viz: One pair by N. B. Reed, weight 2355 pounds, one by Charles E. Boyles, weight 2600 pounds, one by D. S. Eaton, weight 2425 pounds, and two pairs by Timothy Gates, weight 2325 and 2050 pounds.

We award the following premiums:

THREE-YEARS-OLD.

1st, to D. S. Eaton, of Fitchburg,	$4,00
2d, to N. B. Reed, of Princeton,	3,00
3d, to Timothy Gates, of Ashby,	2,00

TWO-YEARS-OLD.

1st, to Gamaliel S. Beaman, of Princeton,	3,00
2d, to W. W. Watson, of Princeton,	2,50
3d, to John P. Rice, of Princeton,	2,00

TRAINED.

1st, to N. B. Reed, of Princeton,	3,00
2d, to W. W. Watson, of Princeton,	2,00
To Frank Smith, a minor, of Princeton, for J. P. Rice's steers, a gratuity of	1,00

A pair of two-years-old by W. W. Benson, another by N. B. Reed, were well worthy of a premium; also a pair of Durham steers by R. G. Chesmore, are worthy of a favorable notice.

The Committee would suggest to breeders of steers the importance of keeping cows to breed from that are near of size and color, well proportioned and hardy; also the importance of keeping steers well, and in a thrifty condition the first year, to give them good form and proportion.

For the Committee,

BENJ. WYMAN, *Chairman.*

STEERS.

YEARLINGS AND CALVES.

The Committee on yearling steers and steer calves, have awarded premiums, as follows:

YEARLING STEERS.

1st, to W. W. Watson, of Princeton,	$3,00
3d, to Daniel S. Eaton, of Fitchburg,	1,00

CALVES.

1st, to W. W. Watson, of Princeton,	5,00
2d, to Franklin Nourse, of Sterling,	3,00
3d, to Hosea M. Caswell, of Fitchburg,	2,00
4th, to Nathan Caswell, of Fitchburg,	1,00

Respectfully submitted.

JOHN SMITH, *Chairman.*

FAT CATTLE.

The Committee on fat cattle have attended to their duty, and submit the following:

There were but few fat cattle on exhibition, but most of them were of good quality. There was but one ox entered, and as the owner did not comply with the rules of the Society, your Committee could not award him either of the premiums; but would recommend a gratuity of $3 to John Brooks, Jr., of Princeton, for the best fat ox.

We also award the following premiums:

FAT COWS.

1st, to J. T. Everett, of Princeton,	$6,00
2d, to J. T. Everett, of Princeton,	3,00
3d, to Thomas Stearns, of Leominster,	2,00

THREE-YEARS-OLD STEERS.

1st, to W. W. Watson, of Princeton, $6,00
2d, to Josiah Page, of Westminster, 4,00

And would recommend a gratuity to W. W. Watson, of Princeton, of $3,00 on a three-year-old steer.

All of which is respectfully submitted.

LEMUEL PITTS,
For the Committee.

DRAUGHT HORSES AND MULES.

Exhibitions of animal strength have always been viewed with interest by agriculturists, a class of men eminently fond of the practical and forcible. To the eye of a true farmer the working horse, whose limbs are formed for toil, is a far more desirable object than the race-horse, even though the latter be of pure blood and able to run a four mile heat in seven minutes, or a trotter that does his mile in 2:19¾, like Flora Temple.

Throughout New England, on many small farms, one good draught horse performs all the work necessary in cultivating the land, besides drawing the family in the "one-hoss-shay." Those who wish to convey large loads to any considerable distance, find it better to use horses than oxen, though the solid strength and patient temper of the latter render them very useful for doing rough work in a rough country like ours. Wherever the nature of the land will admit of it, we think that the horse is quite as useful an animal as the ox, and much more so upon farms where mowing machines and horse-rakes are used; and we cannot but think that a wise

policy would lead our farmers to bestow more attention towards improving the breed of draught horses.

Your Committee were unanimous in their opinion that horses and mules should not be entered in the same class. The only pair of mules entered were those of Dr. Jabez Fisher, which though small, performed very well indeed; but your Committee could not have felt it their duty to award them a premium had they drawn the same weight equally well with a more valuable pair of horses. At the trial, the weight drawn was two thousand pounds of stone on a drag, the distance about two hundred feet, *up hill.* The same load was drawn by both double and single teams. We respectfully suggest whether it would not be well for each of those who compete for a premium to choose the load and the manner in which it is to be drawn. In that case no person could complain that his team was overloaded or forced to work at a disadvantage. There were seven double teams and four single teams entered. Two only of the single teams which were entered were permitted to draw by their owners. Mr. Martin Clifford's gray horse, though not entered for a premium, drew the load with admirable steadiness and perfect ease, and is as good a draught horse as we have seen this many a day.

The following premiums were awarded:

DOUBLE TEAMS.

1st, to McIntire & Cushing, of Fitchburg,	$6,00
2d, to John Brooks, Jr., of Princeton,	4,00

SINGLE TEAMS.

1st, to John M. Stewart, of Princeton,	5,00
2d, to McIntire & Cushing, of Fitchburg,	3,00

ALBERT S. INGALLS,
For the Committee.

STALLIONS, MARES AND SUCKING COLTS.

The Committee on stallions, breeding mares and sucking colts, have attended to their duties and award as follows:

STALLIONS.

1st, to George W. Towne, of Westminster,	$6,00
2d, to A. S. Shattuck, of Pepperell,	5,00

BREEDING MARES.

1st, to James O. Parker, of Shirley,	5,00
2d, to Jabez Fisher, of Fitchburg,	3,00

SUCKING COLTS.

1st, to James O. Parker, of Shirley,	3,00
2d, to Stephen Stanton, of Ashby,	2,00
3d, to Reuben G. Chesmore, of Westminster,	1,00

Also your Committee recommend a gratuity of seventy-five cents each for their sucking colts to Edmund Houghton, J. T. Dunsmoor, W. A. Mandell, of Lunenburg, and Benj. F. Wood, of Westminster.

For the Committee.

WM. D. PECK, *Chairman.*

COLTS.

The Committee on colts award the following premiums:

THREE-YEARS-OLD GELDINGS.

1st, to Franklin Nourse, of Sterling,	$3,00
2d, to Josiah Page, of Westminster,	2,00

THREE-YEARS-OLD FILLEY.

2d, to Timothy Brown, of Westminster, $2,00

TWO-YEARS-OLD STALLION.

1st, to Charles H. Brown, of Fitchburg, 3,00

TWO-YEARS-OLD GELDING.

1st, to J. T. Dunsmoor, of Lunenburg, 3,00

TWO-YEARS-OLD FILLEY.

2d, to James Goodfellow, of Leominster, 2,00

YEARLING COLTS.

1st, to John Brooks, Jr., of Princeton, 3,00

2d, to Joseph Cobb, of Athol, 2,00

To Orin Lawrence, of Ashby, for a two-years-old stallion, not entered in season to receive a premium, a gratuity of $2,00 is recommended.

For the Committee.

J. W. MANSUR, *Chairman.*

SWINE.

The most honorable Committee on the present occasion (on swine) will now with your permission present their report. The active members of the Committee were, J. T. Everett, of Everettville, and Messrs. Marshall White and Ahijah W. Benjamin, of Westminster.

The whole number of entries of boars, breeding sows, fat hogs and shoats, together with weaned pigs, is seventeen, and the whole number of animals, forty-nine. After a somewhat laborious and most conscientious and

careful discharge of our duties, we have awarded the following premiums:

BOARS MORE THAN ONE YEAR OLD.

1st, to Jabez Fisher, of Fitchburg, $4,00
2d, to Robert Burrington, of Lunenburg, 3,00
Joel Page, of Fitchburg, presented a large old boar which would have taken a premium if we had had another at our disposal.

BOARS LESS THAN ONE YEAR OLD.

1st, to Allen B. Wood, of Westminster, 2,00

FAT HOG.

1st, to Willard H. Lowe, of Fitchburg, 4,00

FAT PIGS LESS THAN EIGHT MONTHS OLD.

1st, to Aaron Wilkins, of Fitchburg, 3,00
2d, to Benjamin Safford, of Fitchburg, 2,00

BREEDING SOWS.

1st, to J. T. Dunsmoor, of Lunenburg, 3,00
2d, to Isaac B. Woodward, of Fitchburg, 2,00

WEANED PIGS.

1st, to James McIntire of Fitchburg, 2,00
2d, to J. P. Sabin, of Fitchburg, 1,50
B. F. Proctor, of Fitchburg, offered a sow with twelve pigs, for which we recommend a gratuity of 1,00
We noticed a splendid old boar, purchased at a high figure to improve the stock of hogs and presented for exhibition only, by J. P. Sabin, of Fitchburg, and we recommend to him a gratuity of 2,00

All of which is respectfullly submitted.

J. T. EVERETT, *Chairman.*

SHEEP.

Your Committee on sheep, on entering upon their duties, find in all *twenty* entered for their inspection; consisting of a flock of *twelve*, and the remainder of single or cosset sheep, all of good quality, although few in number. From the smallness of the number and from observation, we feel that farmers in this vicinity entertain the idea that keeping of sheep is but a minor consideration as regards profit, some entertaining the idea that keeping sheep in the same pasture, will in time destroy the vitality of the pasture. Such is not the opinion of your Committee. We think very many of our farmers would find it for their advantage to keep a small flock of sheep; but in order to have it so, sheep, like other stock, should be well cared for. First, a suitable pasture should be selected, situated upon high, warm land, well fenced, containing running water for them during the summer season. In winter they should be provided with a warm, dry fold, to which is attached a yard, which may be occupied at their will, giving them free access to pure water, which in our opinion, *sheep* as well as other stock require. The manger should be so constructed that the fodder may conveniently be fed to them, and so as to prevent its being trodden under their feet. Fine clover hay, well-cured, we consider the best feed for them. Sheep with young lambs, for a few day sat first, require careful attention. In regard to the different breeds of sheep, the Committee are not prepared to say which breed, if kept pure, would be best for our community.

The Committee in examining the small flock entered,

could discern traces of the Merino, South Down, Leicester, Irish Smut and Native, and are of opinion that a cross in these breeds, so as to produce wool of good length and medium fineness, is better for ordinary uses than that of the finest quality; and that sheep producing this quality of wool are more hardy and better for rearing lambs for the market, which in our opinion affords greater profit than the wool to the farmer. You will excuse me if I say a word in regard to my own experience in the matter. I have a pasture situated near my buildings, consisting of about twenty acres, enclosed with a common stone wall with riders upon the top, and a small stream of water running through it. For the last twenty-four years in it I have kept, with my oxen and horse, a flock of from fifteen to twenty sheep each year, which have afforded as good profits as any other stock. The fence I have endeavored to put in good repair before putting them into the pasture in the spring, after which I have seldom had any trouble during the season. And instead of impoverishing the soil, it will now keep, at least one-quarter more stock than when first owned by me, without the application of manure of any kind, except that left by the stock. The present season I have kept seventeen sheep, which brought, in the last week in March and first week in April, twenty lambs, which they have reared. The lambs I sold when three and four months old to the butcher for $80,00 or $4,00 each. The wool, after being washed and sheared from the sheep was sold in the fleece—fter reserving twenty pounds for my family use—fifty-four and one-half at 38 cents per pound amounting to

$20,71, receiving as the income of the flock $100,71 in cash.

The flock for premium was entered by James McIntire, of Fitchburg. The Committee are aware that Mr. McIntire received the premium last year upon his flock, but the flock now entered is not the same as last year; we therefore award for

BEST FLOCK.

1st premium to James McIntire, of Fitchburg, $4,00

COSSETS.

1st, to Allen B. Wood, of Westminster, for French Merino Buck, 2,00

2d, to S. F. Towne, of Westminster, for Native and Leicester Ewe, 1,00

3d, to A. Howe, of Ashburnham, for Cotswold and Leicester Ewe, ,50

To John G. Woodward, of Ashburnham, for a Native Buck, a gratuity of ,50

To Daniel Simons, of Fitchburg, for a Cotswold Ewe, a gratuity of ,50

To John M. Sawtell, of Fitchburg, for one Cotswold Ewe, a gratuity of ,50

JOHN HAYWARD,
For the Committee.

POULTRY.

The Committee have never, or any previous occasion, witnessed a greater number, a greater variety, or better looking fowls than have been seen here to-day. Among them was the little bantam weighing one pound, the chittagong weighing ten pounds, and the noble turkey weighing thirty pounds. There were thirty-five turkeys, fourteen geese, fourteen ducks, and ninety-seven hens; in all one hundred and thirty.

Charles F. Brown, of Fitchburg, exhibited a pair of sea-bright bantams, weighing about three pounds the pair; also seven African bantams, the lot weighing only about eight pounds. Fowls of these breeds are usually small and easily kept. Their eggs are said to be larger in proportion to the size of the fowl, than the eggs of larger breeds. There was also exhibited by the same, one pair of chittagong fowls weighing eighteen and one-half pounds. They are noble fowls, and in the time of the "hen-fever," would have commanded a good price. It is claimed for them that they are good layers and determined setters, but when served for the table are not so desirable as some other fowls. Credit is due to Master Brown for the fine cages in which he exhibited these fowls.

Mr. B. F. Proctor, of Fitchburg, had some of the dorking breed that were very fine. Fowls of this breed mature rapidly, have usually a heavy body, are full in the breast, and better for the table than those of any other breed. But Mr. Proctor had not a sufficient number to entitle him to a premium. There were

several Bolton greys; fowls of this breed mature slowly, are of a small size, and lay small eggs; but they are a bird of great beauty, and if fed well will during the year, lay a large number of eggs. There were several fine fowls of the native breed. There were others that were part native, mixed with some foreign breed. Such fowls are generally more hardy, and if judiciously crossed, are better for the farmer than those that are bred from pure foreign blood. For such fowls the Committee have awarded most of their premiums.

It is known to every farmer that if fowls have their liberty, they will do some mischief during the summer season. It is also true that they will at the same time destroy grasshoppers, worms and other insects, which infest the farm and do much injury to the farmer; this is especially true of turkeys. They will often go through a field with almost as much precision as a company of soldiers, and then back and forth, until they have ranged the whole field, and destroy those insects which have fallen within their path. If the farmer should keep debt and credit with his fowls, he would often find that he was the debtor. We would say to every member of the Society who has a small lot of ground at his command, keep a limited number of fowls, and keep them well. Let a hen-house be built in a warm and dry place; let it be well lighted and ventilated, furnished with nests and nest-eggs, with fresh water and every kind of food suitable for fowls, and if your fowls are what they ought to be, you have our word for it that they will pay a good dividend for the money expended.

The Committee award the following premiums:

DUNG-HILL FOWLS.

1st, to Cyrus Putnam, of Fitchburg,	$2,00
2d, to Moses M. Gage, of Fitchburg,	1,00
3d, to Abel Haskell, of Fitchburg,	,50
To C. F. Brown, of Fitchburg, for his bantam fowls, a gratuity of	,50

TURKEYS.

1st, to J. W. Smith, of Fitchburg,	2,00
2d, A. Stratton, Leominster,	1,00
3d, to L. Stockwell, of Fitchburg,	,50
To Alfred Marshall, a gratuity of	,50

GEESE.

1st, to R. G. Chesmore, of Westminster,	1,00

DUCKS.

1st, to F. W. Smith, of Fitchburg,	1,00
To A. B. Wood, of Westminster, lot of geese, a gratuity of	,75

All of which is respectfully submitted.

JOHN M. HARRIS, *Chairman.*

PLOWING—SINGLE TEAMS.

Your Committee to whom was assigned the single ox-teams, felt great pleasure in seeing so many present to compete for the Society's premiums in a department of our show that is not only exciting and interesting, but highly practical and important. The ground selected for trial was on the farm of A. P. Kimball, and from the

fact that the surface was smooth and even, and the soil a light sandy loam and entirely free from stones, but little skill was required to produce good plowing, and hence the judgment and decision of your Committee was rendered much more embarrassing than it would have been upon less favorable ground. In the judgment of your Committee, such ground should be selected, if possible, as will compare with the average of our farms in this part of the county, and then real skill and merit, amid difficulty and embarrassment, will bring out the true mettle and character both of the team and the plowman. How many of us have been deceived in relation to the real character of what we supposed to be an affectionate husband, or an amiable wife, or fond and dutiful children, until opportunities have offered for us to "look behind the curtain" and listen to their family jars, and personal recriminations, when amid difficulty and disappointment, passion for the time has held sway. So may we be deceived in relation to the real merit of the plowman and his team, if there are no stones, roots or bogs to irritate his temper, or turn aside his plow and perplex his cattle. Our object is, not to see how well a man and team can do under the most *favorable* circumstances, but rather to develope the skill and habits of the team and driver, as they may be seen on his own farm and away from restraint, amid the ordinary duties of every day life. We have heard some plowman use very different language to their teams, on the public highway, from that indulged in on cattle show day.

We are happy to state that no boisterous or profane language was heard by your Committee the present year, and that the speed and training of the cattle were

such as not to require the use of the whip. On the whole the exhibition was a fine one, the contest was pleasant, yet spirited, and was witnessed by a large concourse of highly interested spectators. After a close inspection and mature deliberation, the Committee unanimously agreed upon the following awards:

1st, to Israel Everett, of Princeton,	$8,00
2d, to Charles Flagg, of Sterling,	6,00
3d, to E. G. Mirick, of Princeton,	4,00
4th, to Henry Boyles, to Princeton,	2,00

For the Committee.

J. S. BROWN, *Chairman.*

PLOWING—DOUBLE TEAMS.

The Committee on plowing, double teams, make the following awards:

1st, to W. W. Watson, of Princeton,	$8,00
This team was driven by a boy, fourteen years old, and plow held by a minor, seventeen years old; the Committee therefore recommend a gratuity to W. W. Watson, Jr., of	4,00
And also a gratuity to George W. Watson, of	4,00
2d, to Nathan B. Reed, of Princeton,	6,00
3d, to Joseph Upton, of Fitchburg,	4,00
4th, to Charles K. Sawyer, of Fitchburg,	2,00

THREE-HORSE TEAMS.

1st, to James P. Putnam, of Fitchburg,	5,00
2d, to McIntire & Cushing, of Fitchburg,	3,00

Respectfully submitted.

D. H. MERRIAM, *Chairman.*

PLOWING—HORSE TEAMS.

The Committee on plowing, with single horse teams, have attended to the duty assigned them, and submit the following report:

We think as the Committees on plowing were many, the reports on this branch of agriculture will be full without our making any extended remarks, although we believe that good plowing is the foundation and corner-stone on which all our future hopes depend for success in agriculture. But the great, mooted question is, what is good plowing? There are a great variety of ideas; some tell us shallow, some deep, some furrow-slice, some flat, some wide, some narrow, &c. From what little experience I have had, I would say not less than seven inches deep, on seven-eighths of land suitable for tillage purposes, and most lands even more. Never stir the soil when so moist that it will not pulverize fine; and here I will say the Michigan plow seems to be peculiarily adapted to this purpose. The time was when farmers thought our fallow ground could be broken only by horned cattle; but now they find the horse will do this labor cheaper and quicker than the ox on most of our

land. Before commencing to plow, the contestants were informed that unnatural speed would not be considered meritorious, and that the depth must not be less than seven inches. At the word go they all commenced, ambitious for the prize. Though we are sorry to say it, there was only one man that came plump and square up to the requirement on depth; though on the whole the work was done admirably well, and all seemed to move on quietly and silently. There was one thing the Committee were sorry to hear, and think it ought not to pass without public rebuke, viz: one man was heard to use profane language in driving his team, and we hope another such instance will not occur, for we consider it a great breach of propriety, and no *gentleman* would condescend to such vulgarity.

There were six entries, all contested by the following men: Jabez Fisher, Joel Page and McIntire & Cushing, of Fitchburg; John Brooks, Jr., of Princeton; Albert Stratton, of Leominster, and Luke Wellington, of Ashby.

We award the following premiums:

1st, to McIntire & Cushing, of Fitchburg,	$8,00
2d, to Joel Page, of Fitchburg,	6,00
3d, to Albert Stratton, of Leominster,	4,00
4th, to Luke Wellington, of Ashby,	2,00
To Osmyn Stratton, for holding plow, a gratuity of	2,00

LORISTON STOCKWELL, *Chairman.*

BREAD, BUTTER, CHEESE, &C.

In the absence of Amasa Norcross, Esq., the undersigned was requested by the Secretary of the Society to act as Chairman.

There was a pretty large number of specimens of bread on exhibition, which in the opinion of some of the members of the Committee was below the average quality of former years. This is to be regretted, as the standard of bread-making has more influence in determining the healthfulness of diet, than any other article of food. It is a lamentable hygienic fact that our hotels, boarding-houses, bakeries, and many private families, usually fail to make *perfectly good bread.* This failure we believe to be needless, if not reprehensible. A late medical writer says, "If the quality of *bread* may be properly considered as affording an example of national peculiarities in diet, and we certainly think it may, we are sorry to say that our own country does not herein compare favorably with most others. Bread is generally most excellent in Great Britain—proverbially superior in France—but not in our experience, so good elsewhere on the European continent. Good bread in the United States, is the exception, whether we regard its admixture, preparation, or baking. In no one article of food, perhaps, should more pains be taken to have it in all respects excellent, and especially where people—as is so widely the practice with us—are constantly *bolting* it, hot and fresh!" As a matter vital to the health of the community, we urge the importance of more skill and perfection in making bread.

There was a large number of specimens of butter

before the Committee, most of them of excellent quality, evincing the skill and domestic accomplishments of the dairy-women of Worcester North. From so many good specimens of butter, it was somewhat difficult to determine their relative merits. Each question of premium was decided by a majority vote. And it is but just to say that nearly every tub and box, like political candidates at an election, exhaled odors so fragrant, and looked so bland, sweet and inviting, that they received some votes. We are not aware that the unsuccessful specimens lost their sweetness by defeat, and therefore we give them "honorable mention." Two specimens of excellent butter were on exhibition, too small in quantity, by the rules of the Society, to compete for premium.

But very little cheese was on exhibition; and the Committee expressed the hope that this department of the dairy would in future receive more attention.

The pickles were put up in jars—said to be for family use. They were abundantly *acid* and *peppery*, a quality imputed to all "*family jars*," and of which usually the less said the better.

Of honey, there was but one specimen; and to that, after thoroughly testing its quality by the only sure method, the Committee were unanimous in awarding the highest premium.

The following premiums were voted by the Committee:

LUMP BUTTER.

1st, to S. M. Caswell, of Fitchburg,	$4,00
2d, to E. G. Mirick, of Princeton,	3,00
3d, to Nathan B. Reed, of Princeton,	2,00
4th, to Mrs. Levi Kendall, of Fitchburg,	1,50
5th, to G. S. Beaman, Princeton,	1,00

TUB BUTTER.

1st, to John Ramsdell, of Lunenburg,	$3,00
2d, to Mrs. Addison Howe, of Ashburnham,	2,00

HONEY.

1st, to James McIntire, of Fitchburg,	2,00

WHEAT BREAD.

1st, to Sarah M. Jewett, of Fitchburg,	1,00
2d, to Sarah M. Boyden, of Leominster,	,50
To Martin Clifford, of Fitchburg, a gratuity of	,50

UNBOLTED WHEAT BREAD.

1st, to Lizzie H. Haskell, of Fitchburg,	1,00

RYE AND INDIAN BREAD.

2d, to Julia A. Whitcomb, of Fitchburg,	,50

PICKLES.

1st, to Mrs. Levi Kendall, of Fitchburg,	,75
2d, to Mrs. Edward Bacon, Jr., of Westminster,	,50
3d, to Mrs. Nathan Upham, of Fitchburg,	,25

CHEESE.

1st, to Geo. Miles, of Westminster,	2,00
2d, to John Ramsdell, of Lunenburg,	1,50
3d, to John Fairbanks, of Lunenburg,	1,00

For the Committee.

ALFRED HITCHCOCK, *Chairman.*

S. M. CASWELL'S STATEMENT.

BUTTER.

The process by which our butter is made is the same as I have stated to the Committee on former occasions. The milk is strained into tin pans, filling them about half-full; when the weather is cool it is set in the milk-room, on racks, with the bars about ten inches apart, set corner-wise, thus giving a free circulation of air to the whole bottom surface of the pan, which greatly facilitates the cooling of the milk and rising of the cream. When the weather is warm, it is set in the cellar, on a hard, smooth bottom, which is kept cool and clean by occasionally pouring on cold water, and sweeping thoroughly. After the milk is set, we let it remain from thirty-six to forty-eight hours, according to the temperature of the weather; the cream is then taken off and put in tin pails, and kept in a cool place until a sufficient quantity is gathered for churning, which is usually three times a week, during the summer, when the cows are in full milk; *especial care being always taken not to let the cream remain on the milk after it begins to sour, which together with churning the cream while sweet, I consider one of the great secrets of good butter making;* for, the sweeter the cream when churned, the sweeter will be the butter, and the richer the flavor; after the butter is churned, the butter-milk is well worked out as it is taken from the churn, it is then salted with from three-fourths to one ounce of salt to the pound, according to the strength of the salt; it is then set in a cool place until the next day, when it is again well worked over and lumped for the market. In conclusion, allow me to say that I consider the grand secret of *good* butter making to consist

principally in three things, first, good cows; second, good sweet feed; third, last but not least, a woman who will take *good* care of the milk, and make the butter.

E. G. MIRICK'S STATEMENT.

BUTTER.

The butter which I offer for premium was made in the following manner. The milk is strained into tin pans, and set in a cool cellar for forty-eight hours; it is then skimmed, and the cream churned once a week. When churned, the butter is thoroughly worked, and salted to taste; after the salt is dissolved, it is again worked and lumped.

VEGETABLES.

The Committee on vegetables, award the following premiums and gratuities:

KITCHEN VEGETABLES.

1st, to John M. Sawtell, of Fitchburg, 53 varieties,	$3,00
2d, to Wm. G. Wyman, of Fitchburg,	2,00
3d, to Benjamin Safford, of Fitchburg,	1,00

POTATOES.

1st, to Loriston Stockwell, Fitchburg, 12 varieties,	2,00
2d, to Wm. W. Watson, of Princeton, 10 varieties,	1,00
3d, to Joseph Upton, of Fitchburg, 6 varieties,	,50

MARROW SQUASHES.

1st, to T. R. Boutelle, of Fitchburg,	1,00
2d, to Alvah Crocker, of Fitchburg,	,50

HUBBARD SQUASHES.

1st, to Jabez Fisher, of Fitchburg, $1,00
2d. to T. R. Boutelle, of Fitchburg, ,50

PUMPKINS.

1st, to Edmund Houghton, of Lunenburg, ,75
2d, to Jabez Fisher, of Fitchburg, ,50

CABBAGES.

1st, to Walter Heywood, of Fitchburg, ,75

CAULIFLOWER.

1st, to Wm. B. Hosmer, of Leominster, ,75

CELERY.

1st, to Walter Heywood, of Fitchburg, ,75

ONIONS.

1st, to Lawrin Pratt, of Fitchburg, ,75
2d, to Jabez Fisher, of Fitchburg, ,50

TURNIP BEETS.

1st, to Gardner Merriam, of Leominster, ,75
2d, to Addison Hubbard, of Fitchburg, ,50

ENGLISH TURNIPS.

1st, to Gardner Merriam, of Leominster, ,50
2d, to Jabez Fisher, of Fitchburg, ,25

TOMATOES.

1st, to Walter Heywood, of Fitchburg, ,50
2d, to Wm. J. Clifford, of Fitchburg, ,25

SEED CORN.

1st, to Walter Heywood, of Fitchburg, 1,00
2d, to Moses M. Gage, of Fitchburg, ,75
3d, to Loriston Stockwell, of Fitchburg, ,50

GRATUITIES.

Thomas Palmer, of Fitchburg, potatoes, ,25
Charles A. Emery, of Fitchburg, tomatoes, ,25

Addison Hubbard, of Fitchburg, pumpkins and squashes,	$0,37
Charles Fessenden, of Fitchburg, squashes,	,25
Jabez Fisher, of Fitchburg, marrow squashes,	,25
Jabez Fisher, of Fitchburg, water melons,	,25
Jabez Fisher, of Fitchburg, peppers,	,25
A. P. Goodridge, Fitchburg, squashes,	,50
L. Stockwell, Fitchburg, citrons,	,25
S. M. Caswell, of Fitchburg, potatoes,	,25
Gardner Merriam, of Leominster, parsnips,	,25
Edward Turpin, of Fitchburg, 7 great squashes, 5 of which grew upon one vine,	,50
L. A. Parsons, of Shirley, for squash 158½ lbs.,	,50
Alfred Clark, of Shirley, squash,	,25
D. H. Jaques, of Fitchburg, squash,	,25
A. Simonds, of Fitchburg, 2 squashes,	,25
S. W. Putnam, of Fitchburg, squashes,	,37
James McIntire, of Fitchburg, potatoes,	,25
A. D. Weymouth, of Fitchburg, potatoes,	,25

In making these awards, the Committee were precluded from giving premiums to some grand specimens of various kinds of vegetables, which were of varieties for which premiums were not offered, although some of them were erroneously marked as of varieties within the rules of the Society. The display of vegetables was very fine, both in quality and quantity, and in the opinion of the Committee has never been exceeded in former years.

For the Committee.

E. TORREY, *Chairman.*

APPLES AND FLOWERS.

The Committee on apples and flowers having discharged their duty, beg leave to submit the following report:

The display of apples was excellent and in many respects superior to that of former years. There was evidence of a more careful attention to the selection of the choicer varieties, and the specimens presented, in their smoothness and freedom from blemish, indicated care and culture. In their award of premiums your Committee were not governed solely nor mainly by the size and fairness of the specimens presented, but had regard in a great measure to the choiceness and value of the varieties represented, believing those to be of paramount importance. It is only by a careful selection of the best varieties (with a regard at the same time, of course, to fitness of soil and climate) that a truly valuable apple orchard can be raised, and it is only in this manner that the quality of the apple can be permanently, and to any considerable degree, improved. The raising of the apple is fast getting to be an object of the first importance to the farmer, being one of the most lucrative and least laborious uses to which he can put his soil, and nothing which tends to its improvement and perfection can be considered unworthy his attention. In this connection we would remark, that a little closer attention to the rules of the society in relation to the number of specimens required of each variety, would in many cases obviate no small degree of disappointment. We were unable to award premiums in several instances to entries which

would otherwise have taken them, for the simple want of an observance of this rule.

The display of flowers, for the season, was very good. Particularly we noticed some very fine specimens and varieties of the Dahlia.

In the department of preserved fruits there was but one entry; but this, after a thorough discussion and digestion, we can aver upon our honor to be of the first quality. By a process which is unknown to your Committee they are put up by Mr. Wm. G. Wyman in a manner to preserve all the flavor of the fruit, and to unite with it a delicious syrup.

FRUITS.

APPLES.—CLASS 1.

1st, to Benjamin Snow, Jr., of Fitchburg,	$4,00
2d, to E. E. Boyden, of Leominster,	3,00

CLASS 2.

1st, to Moses M. Gage, of Fitchburg,	3,00
2d, to C. H. Colburn, of Leominster,	2,00
3d, to Samuel Burnap, of Fitchburg,	1,00

CLASS 3.

1st to Addison Hubbard, of Fitchburg,	2,00
2d, to C. C. Field, Leominster,	1,50
3d, to Loriston Stockwell, of Fitchburg,	1,00

CLASS 4.

1st, to Benjamin Safford, of Fitchburg,	1,50
2d, to Hale W. Page, of Fitchburg,	1,00
3d, to Jackson Burr, of Ashby,	,50

FOR BASKET OF ANY VARIETY.

1st, to Samuel Farwell, 2d, of Fitchburg,	$1,50
2d, to Walter Heywood, of Fitchburg,	1,00

GRATUITIES.

Benjamin Safford, of Fitchburg,	,50
Levi Kendall, of Fitchburg,	,50
Geo. G. Sampson, of Ashburnham,	,75
W. G. Wyman, of Fitchburg,	,75
Jonas A. Marshall, of Fitchburg,	,75
Mrs. Wm. Steele, of Fitchburg,	,50

FLOWERS.

PLANTS IN POTS.

1st, to Walter Heywood, of Fitchburg,	2,00
2d, to Mrs. E. B. Hayward, of Fitchburg,	1,00

CUT FLOWERS.

1st, to Josiah Sheldon, of Fitchburg,	1,00
2d, to J. F. Monroe, of Fitchburg,	,50

GRATUITIES.

Mrs. T. C. Benton, of Fitchburg,	,25
Miss Mary Dickenson, of Fitchburg,	,25
Miss Harriet Lawrence, of Ashby,	,25
Mrs. C. A. Emery, of Fitchburg,	,25
Miss Mary Green, of Fitchburg,	,25
Wm. J. Clifford, of Fitchburg,	,25

PRESERVED FRUITS.

1st, to Wm. G. Wyman, of Fitchburg,	3,00

All which is respectfully submitted.

C. H. B. SNOW, *Chairman.*

FRUITS OTHER THAN APPLES.

PEARS—CLASS 1.

1st, to Jabez Fisher, of Fitchburg,	$4,00
2d, to Benjamin Snow, Jr., of Fitchburg,	3,00

CLASS 2.

1st, to Walter Heywood, of Fitchburg,	3,00
2d, to W. G. Wyman, of "	2,00

CLASS 3.

1st, to T. R. Boutelle, of Fitchburg,	2,00
2d, to J. A. Marshall, of "	1,50

CLASS 4.

1st, to Jabez Fisher, of Fitchburg,	1,50
2d, to Sewall Richardson, of Fitchburg,	1,00
3d, to Walter Heywood, of "	,50

CLASS 5.

1st, to C. H. Colburn, of Leominster,	1,50
2d, to T. R. Boutelle, of Fitchburg,	1,00
To G. F. Nutting, of Fitchburg, a gratuity of	1,00
To Alvah Crocker, of Fitchburg, a gratuity of	1,00

PEACHES.

1st, to Walter Heywood, of Fitchburg,	2,00

QUINCES.

1st, to Alvah Crocker, of Fitchburg,	1,00
2d, to Mrs. Everett Sprague, of Fitchburg,	,50

PLUMBS.

No premium awarded.

GRAPES—CLASS 1.

1st, to Walter Heywood, of Fitchburg,	3,00

CLASS 2.

1st, to George E. Towne, of Fitchburg, $3,00
2d, to Jabez Fisher, of Fitchburg, 2,00
3d, to W. G. Wyman, of Fitchburg, 1,00

ASSORTED FRUIT.

1st, to Moses M. Gage, of Fitchburg, 2,00

G. E. TOWNE, *Chairman.*

FANCY ARTICLES.

The Committee on fancy articles made the following awards:

Mrs. L. B. Jaquith, of Fitchburg, worsted picture, $2,00
Mrs. Charles H. Divoll, of Fitchburg, worsted picture, 1,50
Miss Julia E. Houston, of Boston, worsted picture, 1,00
Miss C. E. Knight, nine years old, of Fitchburg, pencil drawing, ,50
Miss Mary Brooks, of Fitchburg, crayon drawing, ,50
Mrs. C. H. Eager, of Fitchburg, pencil drawing, ,50
Miss R. Greenwood, of Gardner, floral design, ,50
Miss Ann E. C. White, of Ashburnham, pencil drawing ,50
Miss R. Greenwood, of Gardner, hair work, ,50
Miss R. Greenwood, of Gardner, wax flowers, ,50
Mrs. Maria Sawyer, of Fitchburg, sofa pillow, ,50
Levi Farwell, of Fitchburg, taboret, ,50
Miss Rebecca Boutelle, of Fitchburg, knit hood, ,25
Mrs. A. Brooks, of Fitchburg, cone pyramid, 1,00

Miss Emma Willis, of Fitchburg, child's dress and cape,	$0,75
Miss Laura Tilden, of Fitchburg, crochet shawl,	,50
Miss Hattie Gerry, of Fitchburg, work baskets,	,50
Mrs. Martha L. Felch, of Natick, embroidered flannel,	,50
Mrs. Wyman Richardson, of Fitchburg, embroidered flannel,	
Miss Maria L. Goodnow, (ten years old,) of Fitchburg, crochet shawl,	,25
Mrs. Thomas G. Learned, of Fitchburg, tidy,	,75
Miss L. J. Brown, of Fitchburg, tidy,	,50
Miss E. H. Mahon, of Fitchburg, tidy,	,50
Mrs. R. Butler, of Fitchburg, fancy mittens,	,25
Mrs. N. Tolman, of Fitchburg, infant bibs,	,25
Mrs. H. Goodrich, of Fitchburg, needle book,	,33
Mrs. Tamer Sheldon, of Fitchburg, stripped mittens,	,25
Mrs. Julius Eaton, of Fitchburg, lamp mat,	,50
Mrs. Henry Jackson, of Fitchburg, infant dress,	,50
Mrs. Ellen Merriam, of Fitchburg, embroidery,	,25
Mrs. Josiah Wilder, of Sterling, wrought scarf,	,25
Miss Mary Ryan, of Fitchburg, pink wrought scarf,	,25
Mrs. M. W. Partridge, of Fitchburg, embroidered cap and handkerchief,	,33
Miss Helen A. Adams, of Winchendon, wax fruit,	,25
Mrs. Eliza A. Gates, of Gardner, hair work,	,25
Miss Caroline M. Stearns, of Leominster, hair work,	,25
Mrs. C. Griswold, of Fitchburg, bonnets, &c.,	1,00
Mrs. Anna Trees, of Fitchburg, bonnets, &c.,	,75

Miss Hattie Gerry, of Fitchburg, card receiver, $0,50
Miss J. B. Putnam, of Fitchburg, hanging basket, ,25
Miss Louiza Howard, of Fitchburg, picture frames, ,50
Miss P. B. Choate, of Fitchburg, crayon drawing, ,50
Miss A. K. Keyes, East Princeton, chair cushion, ,50
Mrs. Silas Buss, 93 years old, of Sterling, stockings ,25
Miss Jenney L. Beaman, 8 years old, of Sterling, stockings, ,25
Mrs. Betsey Merriam, 87 years old, of Fitchburg, stockings, ,25
Mrs. Betsey Sampson, of Ashburnham, cotton stockings, ,25
Mrs. Thomas G. Learned, of Fitchburg, stockings, ,25
Mrs. W. G. Wyman, of Fitchburg, stockings, ,25

NATHANIEL WOOD, *Chairman.*

MECHANICS AND MANUFACTURES.

The Committee on mechanics and manufactures make the following awards:

Day & Field, telegraph plow, $2,00
Miss Sarah J. Marshall, Fitchburg, cane chair seats, ,50
W. Wallace, Fitchburg, agricultural implements, 1,00
A. L. Marshall, Fitchburg, paper hangings, ,50
Mrs. A. Wetherbee, Fitchburg, carpet and cover, ,75
Mrs. E. L. Smith, Fitchburg, carpet, 1,00
H. B. Rice, Fitchburg, bed quilt, ,25
Mrs. E. L. Gilchrest, Fitchburg, bed quilt, ,50
Mrs. Ira Holt, Fitchburg, bed quilt, ,50

Mrs. E. Beaman, Fitchburg, bed quilt,	$0,50
Mrs. Frances Boutwell, Fitchburg, two rugs,	1,00
Miss C. B. Holden, Fitchburg, rug,	,25
Sophia S. Gage, Fitchburg, two rugs,	,50
J. Pierce, Fitchburg, calf skins and calcutta,	,50
Warren Simonds, East Templeton, calf skins,	1,00
A. Partridge, Fitchburg, thick boots,	1,00
A. Partridge, Fitchburg, ladies' shoes,	1,00
J. L. Tenney, Fitchburg, thin boots,	1,00
H. A. Goodridge, Fitchburg, hats, caps and furs,	1,00
Thomas Upton, Fitchburg, mattress,	,75
Levi Stevens, Fitchburg, brass castings,	1,50
Wm. L. Eager, Fitchburg, mattress,	,25
J. Litchfield, Fitchburg, grain cradle,	1,00
Wm. L. Camp, Fitchburg, globe,	1,00
J. C. Moulton, Fitchburg, daguereotypes,	1,00
Dr. Thomas Palmer, Fitchburg, dentistry,	1,00
Mrs. J. M. Twitchell, Fitchburg, fire board,	,50
Josiah Sheldon, Fitchburg, shingles,	,50
Ira Carleton, Fitchburg, flour,	1,00
C. B. Flagg, flour,	1,00
Thomas Sheldon, Fitchburg, ox yoke,	1,00
Nourse, Mason & Co., mowing machines,	2,00
Miss Laura L. Marshall, Fitchburg, cane seat chairs	,50
Miss A. Smith, Fitchburg, carpet,	,50
Mrs. Levi Benjamin, bed spread,	,50

CHARLES FESSENDEN.
For the Committtee.

Note.—Carriages of superior workmanship were exhibited by Chas. Fessenden, which, but for a supposed failure to comply with one of the regulations of the Society, and his extreme modesty, would have entitled him to a premium.—*Sec.*

ROOT CROPS.

The Committee on root crops having attended to the duties assigned them, after a careful examination of the statements of the several competitors, have awarded the following premiums :—

POTATOES.

1st, to John Brooks, Jr., of Princeton, $4,00
2d, to John Brooks, Jr., of Princeton, 3,00

Samuel Farwell, 2d, of Fitchburg, had an entry of Davis' seedling potatoes, yielding 100½ lbs. to the square rod, which would, (other things being equal,) have entitled him to the first premium, but there not being the requisite amount of land, no statement is returned.

CARROTS.

1st, to John Brooks, Jr., of Princeton, $4,00
2d, to Isaac B. Woodward of Fitchburg, 3,00

There were two entries of English turnips, both of which were withdrawn.

RUTA BAGAS.

2d, to Wm. G. Wyman, of Fitchburg, there being no other entry. 2,00

CYRUS THURSTON, *Chairman.*

JOHN BROOKS JR'S STATEMENT.*

POTATOES.

The half-acre on which my Davis' seedling potatoes grew, is a wet soil, with a clay sub-soil. The crop of 1857–8, was grass, without manure. It was plowed once, May 29th, about eight inches deep; furrowed, and manured with seven and one-half loads, spread before plowing, and 150 lbs. plaster in the hill; planted, June 7th, in hills, with seven bushels large potatoes, cut, two pieces per hill; twenty-four hills per square rod; hoed once, and harvested October 5th.

Cost of plowing,	$1,00
Furrowing and applying plaster,	1,00
Manure,	9,37
Plaster,	,75
Seed,	2,80
Planting,	1,50
Hoeing,	1,50
Harvesting,	1,50
Total,	$19,42

Produce, as estimated by the Committee, Oct. 3d, 100 lbs. per square rod—equal to 8000 lbs., or 133 1-3 bushels the half-acre.

The half-acre on which my St. Helena potatoes grew, is a muck-meadow, very cold, drained six years ago. The crop of 1857–8, was grass of very poor quality, without manure. It was plowed once, June 11th, about eight inches deep; harrowed once; furrowed; manured with eight loads spread after plowing, and ashes in the hill; planted, June 11th, with five bushels

*The statements concerning cultivated crops are made by the Secretary from the blank forms sent to the several competitors. In all cases where manure is estimated in loads, the loads are understood to contain thirty bushels each.—*Sec.*

potatoes, cut, three pieces per hill, thirty hills per square rod; hoed once, and harvested October 5th.

Cost of plowing,	$1,00
Furrowing and applying ashes,	1,00
Manure,	10,00
Ashes,	1,00
Seed,	1,25
Planting,	1,50
Hoeing,	1,50
Harvesting,	2,00
Total,	$19,25

Produce, as estimated by the Committee, October 3, 98½ lbs. per square rod; equal to 7880 lbs, or 131 1-3 bushels to the half-acre.

JOHN BROOKS JR'S STATEMENT.

CARROTS.

The eighth-acre on which my carrots grew, is wet, with a clay sub-soil. The crop of 1857 was carrots, with 2½ loads manure, and 12½ lbs. superphosphate of lime; that of 1858 was ruta-bagas, with 200 lbs. horn shavings. It was plowed once, May 28th, nine inches deep; manured with two loads cow manure, spread before plowing, raked, and sowed, June 6th, in rows, with one-eighth pound horn carrot seed; hoed twice, and harvested October 24th.

Cost of plowing,	$0,25
Raking,	,25
Manure,	2,50
Seed and sowing,	,25
Cultivation,	2,00
Harvesting,	1,50
Total,	$6,75

Product, as estimated by the Committee, October 24, 290 lbs. 14 oz. to the square rod.

I consider the *Horn* carrot better and more productive than the Orange.

ISAAC B. WOODWARD'S STATEMENT.

CARROTS.

The lot on which my carrots grew, contains 25 2-3 rods, is a heavy loam soil, upon a clayey sub-soil. The crop of 1857 was southern corn, with seven loads loam that had been put under the cow stable; that of 1858 was carrots, with two cords green manure. It was plowed the first and last of May, six and ten inches deep; manured with eight loads, spread before plowing; raked, sowed, June 4th, with one-half pound orange carrot seed; hoed three times by hand and once with a wheel hoe, and harvested the latter part of October.

Cost of plowing, &c.,	$2,00
Manure,	10,00
Seed and sowing,	,50
Cultivation,	4,00
Total,	$16,50

The tops paid for harvesting.

Produce, as estimated by the Committee, November 1, 318¾ lbs. per square rod.

W. G. WYMAN'S STATEMENT.

SWEEDISH TURNIPS.

The eighth-acre which produced my ruta-bagas is a gravelly loam upon a loose sub-soil. The crop of 1857 was corn and turnips, with three-fourths cord compost;

that of 1858, corn and beans, with five-eighths cord stable manure from my barn cellar, and one bushel ashes.

Eight rods of the lot was plowed, May 2, and twelve rods August 9, each once, about eight inches deep, and smoothed with a hand-rake. The manure was one-third cord spread before plowing, and 100 lbs. bone manure in the drill. The first part was sowed June 7, in drills about three feet apart; the second part was transplanted from the first, August 11th and 12th, after a crop of peas, in drills two feet apart. Seed, Rivers' stubble Sweedish turnip, raised by myself. The first part was hoed twice, the second had no cultivation.

Cost of plowing, &c.,	$0,75
Manure and bone,	3,00
Seed, sowing and cultivation,	,50
Transplanting,	1,00
Total,	$5,25

The tops paid for harvesting,

Produce as estimated by the Committee, November 1, 250 lbs. per square rod.

The part which was not transplanted, produced 361 lbs. per square rod of large, well-formed roots, while that where the turnips were transplanted produced only 139 lbs. per rod, and many of the turnips were small and imperfectly formed.

I think the fact that the weather was excessively dry when the turnips were transplanted, and for some time succeeding, and also that the month of October, in which I usually get the best growth of late roots, was very unfavorable for such growth, rendered the experiment in transplanting less successful than it otherwise would have been.

Two small lots transplanted in other places, from ten to twenty days earlier, produced at nearly the same rate as the lot sown, from which all the plants for transplanting were obtained, and the turnips were of a superior quality.

GRAIN.

The Committee on grain would report that eleven fields of corn were duly entered, but on account of the coldness of the season, and the crops not coming to maturity, only four fields were finally presented as entitled by the rules of the Society, to compete for the premiums, and these four came so near in quantity and quality, as will be seen by examining the annexed statements from James P. Putnam, Edward Smith, Joseph Smith, and Samuel Farwell, 2d, all of Fitchburg; that your Committee were in doubts to decide in awarding the premiums, and we have taken the whole amount of cash set apart, and divided the same among the above named gentlemen, giving each three dollars seventy-fients, premium.

The season for English grain was of unusual promise, and the quality of wheat, rye, oats and barley, which were presented for competition, was exceedingly gratifying to your Committee; all but one field of rye,* which

*The field of rye which did not come duly to the attention of the Committee, was entered by Liberty Wellington, of Ashby. The return from the officer appointed to examine it, by some mistake, did not arrive until after the Committee had closed their report. The rye is represented to have been of superior quality.—*Sec.*

were entered regularly of the above kinds, came duly to our attention, and we annex our awards, with the written statements of the successful competitors:

WHEAT.

1st, to John Brooks, Jr., of Princeton,	$4,00
2d, to Charles Flagg, of Sterling,	3,00
3d, to Wm. W. Watson, of Princeton,	2,00

OATS.

1st, to Charles Flagg, of Sterling,	3,00
2d, to Edward Smith, of Fitchburg,	2,00

RYE.

1st, to Albert Stratton, of Leominster,	3,00
2d, to Daniel Miles of Westminster,	2,00

BARLEY.

Abel F. Adams, of Fitchburg, a gratuity of	2,00
Benjamin Safford, of Fitchburg, a gratuity of	1,50

CORN.

James P. Putnam, of Fitchburg,	3,75
Samuel Farwell, 2d, of Fitchburg,	3,75
Edward Smith, of Fitchburg,	3,75
Joseph Smith, of Fitchburg,	3,75

HERDSGRASS SEED.

2d, to Benjamin Safford, of Fitchburg,	1,00

RED-TOP SEED.

1st, Benjamin Safford, of Fitchburg,	2,00

L. H. BRADFORD, *Chairman.*

JOHN BROOKS JR'S STATEMENT.

WHEAT.

The acre on which my wheat grew is a wet soil, on a clay sub-soil. The crop of 1857 was potatoes, with fifteen loads of compost and a handful of plaster in the hill; that of 1858, corn, with fifteen loads green manure, and 50 lbs. guano. It was plowed May 1, twice, eight and six inches deep, and harrowed; manured with fifteen loads spread, and sowed, May 3, with two bushels Scotch fife wheat, broad cast.

Cost of plowing and harrowing,	$3,50
Manure,	18,75
Seed and sowing,	4,25
Harvesting,	6,00
Total,	$32,50

Product, as estimated by the Committee, October 15, 13½ lbs. wheat per square rod. Straw 27¼ lbs. per rod.

CHARLES FLAGG'S STATEMENT.

WHEAT.

The acre on which my wheat grew is a yellow loam. The crop of 1857 was grass, without manure; that of 1858, corn, with thirty loads compost. It was plowed in April, sowed April 21, with about two bushels Scotch fife wheat, without manure, and harvested in August, half cradled, half reaped.

Cost of plowing, &c.,	$3,00
Seed and sowing,	5,00
Harvesting,	4,75
Total,	$12,75

Product, as estimated by the Committee, November 7, 13¼ lbs. wheat per square rod.

EDWARD SMITH'S STATEMENT.

OATS.

The acre on which my oats grew is a gravelly soil, on a hard sub-soil. The crop of 1857 was potatoes, with twelve loads compost; that of 1858, corn, with thirty loads compost. It was plowed twice, six inches deep, sowed with three bushels Australian oats, without manure, and harvested, August 8.

Cost of plowing,	$4,00
Seed and sowing,	3,75
Harvesting,	10,00
Total,	$17,75

Product, as estimated by the Committee, 11 lbs. 12 oz. oats per rod. One and one-half tons straw, worth $12,00.

ALBERT STRATTON'S STATEMENT.

RYE.

The acre on which my rye grew is a light loam, with a gravelly sub-soil. The crop of 1857 was grass, without manure; that of 1858, wheat, with six loads manure, 100 lbs. guano, and six bushels ashes. It was plowed once, in August, six to seven inches deep; manured with twelve loads spread, harrowed, sowed the second week in September with 1⅛ bushels white rye, and harvested July 29, with a Manny reaper and a sickle.

Cost of plowing, &c.,	$4,50
Manure,	20,00
Seed and sowing,	1,75
Harvesting,	7,00
Total,	$32,75

Product, as estimated by the Committee, November 7, was 16 lbs. per square rod of rye. Straw, two tons the acre.

DANIEL MILES' STATEMENT.

RYE.

The acre on which my rye grew is a hard, stoney lot, recently cleared from wood. No crop was raised on it in 1857 or 1858. It has never been plowed; I could not plow it. It was harrowed, sowed September 20, without manure, and reaped in July.

Cost of harrowing, &c.,	$2,00
Seed and sowing,	1,12
Harvesting, &c.,	9,50
Total,	$12,62

Product, as estimated by the Committee November 7, was 13¾ lbs. per rod of rye, and the straw 23½ lbs. Sold the straw for $10,00 per ton. Expense of delivering it, $1,00 per ton.

ABEL F. ADAMS' STATEMENT.

BARLEY.

The field on which my barley grew contains two and seven-eighths acres. The soil is a sandy loam. The crop of 1857 was rye without manure; that of 1858, corn with ten or fifteen loads compost per acre. The field was plowed about 7 inches deep; ten loads of green manure per acre, spread, then plowed again with a horse, and May 6 and 7, 9½ bushels of two-rowed barley sowed on the furrows; three leads of leached ashes spread, and the crop harvested by mowing, spreading the swaths, and carting to the barn; finished, August 9th.

Cost of plowing, &c.,	$6,50
Seed and sowing,	10,00
Harvesting, threshing, &c.,	27,00

Total, except manure, only one-third of the strength of which I suppose to be exhausted, $43,00.

Produce, by actual measure, 132 bushels barley,	$132,00
And four tons straw,	28,00
Total value of crop,	$160,00

BENJAMIN SAFFORD'S STATEMENT.

BARLEY.

The soil where my barley grew is a gravelly loam. The crop of 1857 was corn and turnips, with about seven cords of compost, mostly stable manure, per acre; that of 1858, corn manured as in 1857. It was plowed, April 18 to 20, once, six to seven inches deep; harrowed both ways; sowed, April 22, without manure, with three and three-fourths bushels common two-rowed barley per acre, and mowed the last week in July.

Cost of plowing and harrowing,	$3,00 per acre.
Seed and sowing,	3,90 "
Total, except harvesting and threshing,	6,90 per acre.

I consider the straw worth the expense of harvesting and threshing.

Produce, 22½ bushels of barley, which weighed 51 lbs. per bushel on 79 rods, equal to 45½ bushels per acre by measure, or 48 1-3 bushels by standard weight.

EDWARD SMITH'S STATEMENT.

CORN.

The field on which my corn grew is a heavy soil on a clay sub-soil. It contains about one and one-half acres. The crop of 1857 was grass, without manure; that of 1858, potatoes, with twelve loads compost. It was plowed twice, seven inches deep; manured with

thirty loads, spread; planted, May 25, with eight-rowed yellow corn; hoed three times, and harvested Oct. 20th

Cost of plowing, &c.,	$4,00
Manure,	30,00
Seed and planting,	2,00
Cultivation,	7,00
Harvesting, &c.,	7,50
Total,	$51,00

Produce, as estimated by the Committee, November 7, 25 lbs. 5½ oz. per square rod. Stover $10 worth, the lot.

JAMES P. PUTNAM'S STATEMENT.

CORN.

The field on which my corn grew contains about three acres. It is a gravelly loam. The crop of 1857–8, was grass, without manure. It was plowed in November, seven to eight inches deep; harrowed and cultivated in the second week in May; manured with twenty-five loads per acre, most of it spread, about one-half a shovelful put in the hill; planted May 16 and 17, with a single corn-planter, with the Carter corn, six quarts per acre; worked three times with a cultivator and hand-hoe; tops cut in September, and harvested the latter part of October.

Cost of plowing, &c.,	$6,00 per acre.
Manure,	32,00 "
Seed and planting,	2,00 "
Cultivation,	9,00 "
Harvesting,	5,00 "
Total,	$54,50 per acre.

Produce, as estimated by the Committee, November 7, 24 lbs. 2½ oz. per square rod. Stover, 1½ tons per acre.

ANALYSIS OF PREMIUMS AND GRATUITIES AWARDED.

FARMS, &c.

Amount awarded for	Farms,	$15,00	
" "	Plowing,	78,00	
" "	Orchards,	25,00	
Total,			$118,00

FARM STOCK.

Amount awarded for	Bulls,	$28,00	
" "	Milch Cows,	27,00	
" "	Heifers,	43,00	
" "	Calves,	26,00	
" "	Working Oxen,	20,00	
" "	Steers,	24,50	
" "	Fat Cattle,	27,00	
" "	Horses,	63,50	
" "	Sheep,	9,00	
" "	Swine	28,00	
" "	Poultry,	10,75	
Total,			$306,75

FARM PRODUCTS.

Amount awarded for	Indian Corn,	$17,25	
" "	Wheat,	9,00	
" "	Barley,	3,50	
" "	Rye,	5,00	
" "	Oats,	5,00	
" "	Grass Seed,	5,00	
" "	Potatoes,	11,50	
" "	Carrots,	7,00	
" "	Other Root Crops,	5,50	
" "	Fruits and Flowers,	72,25	
" "	Bread, Butter, Cheese, Pickles and Honey,	26,50	
Total,			$167,50

MISCELLANEOUS.

Amount awarded for Mechanical, Manufactured and Fancy Articles,	$52,66	
Total amount awarded,		$676,65

Premiums were paid to one hundred and seventy-nine different persons, and the amounts distributed as follows :

Fitchburg,	296,83	
Princeton,	184,00	
Lunenburg,	32,57	
Leominster,	28,25	
Shirley,	22,50	
Sterling,	19,25	
Westminster,	12,00	
Ashby,	9,25	
Ashburnham,	4,50	
Athol,	2,00	
Gardner,	1,50	
Templeton,	1,00	
Total,		$613,83

FINANCES.

RECEIPTS.

Amount received from the Commonwealth,	$600,00	
" " " Income of the Fund,	223,97	
" " " New Members,	60,00	
" " " Admission Fees, &c.,	451,40	
Total,		$1335,37

DISBURSEMENTS.

Amount of premiums and gratuities paid out,	$613,83	
" Current expenses, &c., for the year,	317,12	
Total,		$930,95
Amount of the permanent fund, Dec. 7, 1859,		$4100,00
Increase of the funds the past year,		300,00

PAST PREMIUMS, &C.

1853.	Amount premium offered,	$409,50
	Amount premium and gratuities paid,	354,80
	Amount permanent fund,	2128,00
1854.	Amount premium offered,	477,00
	Amount premium and gratuities paid,	395,23
	Amount permanent fund,	2800,00
1855.	Amount premium offered,	639,00
	Amount premium and gratuities paid,	499,44
	Amount permanent fund,	3100,00
1856.	Amount premium offered,	690,75
	Amount premium and gratuities paid,	549,71
	Amount permanent fund,	3200,00
1857.	Amount premium offered,	721,75
	Amount premium and gratuities paid,	566,73
	Amount permanent fund,	3550,00
1858.	Amount premium offered,	857,25
	Amount premium and gratuities paid,	701,96
	Amount permanent fund,	3800,00
1859.	Amount premium offered,	884,75
	Amount premium and gratuities paid,	613,83
	Amount permanent fund,	4100,00

NEW MEMBERS.

FITCHBURG.

Caswell, S. Melville.
Clifford, Martin.
Farwell, Lyman.
Garfield, J. F. D.
Lowe, Willard H.
Sawyer, Charles K.

LUNENBURG.

Houghton, Edmund,
Ramsdell, John,

SHIRLEY VILLAGE.

Wetherbee, William H.

WESTMINSTER.

Towne, George W.
Wood, Timothy D.

OFFICERS OF THE SOCIETY FOR 1860.

President.

THOMAS BILLINGS, of Lunenburg.

Vice-Presidents.

MOSES M. GAGE, of Fitchburg.
EZRA KENDALL, of Sterling.

Secretary.

W. G. WYMAN, of Fitchburg.

Treasurer.

T. C. CALDWELL, of Fitchburg.

Trustees.

OHIO WHITNEY, Jr., of Ashburnham.
HOWARD GATES, of Ashby.
JOEL HAYWARD, of Ashby.
L. H. BRADFORD, of Gardner.
SOLON CARTER, of Leominster.
C. C. FIELD, of Leominster.
LEMUEL PITTS, of Lunenburg.
DANIEL PUTNAM, of Lunenburg.
JOHN BROOKS, Jr., of Princeton.
HENRY BOYLES, of Princeton.
J. T. EVERETT, of Princeton.
N. B. REED, of Princeton.
ANAN STOCKWELL, of Royalston.
JAMES O. PARKER, of Shirley.
SAMUEL OSGOOD, of Sterling.
WARREN SIMONDS, of Templeton.
DANIEL MILES, of Westminster.
BENJAMIN WYMAN, of Westminster.
A. F. ADAMS, of Fitchburg.
T. R. BOUTELLE, of Fitchburg.
JABEZ FISHER, of Fitchburg.
ABEL MARSHALL, of Fitchburg.
J. A. MARSHALL, of Fitchburg.
JOEL PAGE, of Fitchburg.
J. P. PUTNAM, of Fitchburg.
JOSEPH SMITH, of Fitchburg.
EDWIN UPTON, of Fitchburg.
JOSEPH UPTON, of Fitchburg.
MOSES WOOD, of Fitchburg.
I. B. WOODWARD, of Fitchburg.

Member of the Board of Agriculture.

JABEZ FISHER, of Fitchburg.

LIST OF PREMIUMS

FOR THE

EIGHTH ANNUAL EXHIBITION,

TO BE HELD AT FITCHBURG,

On Tuesday, September 25th, 1860.

No person will be allowed to become a competitor for any of the Premiums herein offered, unless he shall have made an entry for the same, with the Secretary, within the time prescribed for each class, nor unless he shall also have furnished all required statements relating thereto within the specified time.

For the convenience of those who live at a distance, entries may be made by mail; and all entries so made must be delivered at some Post Office one day previous to the expiration of the time specified, and must bear proof of having been so delivered either by a post-mark, or a certificate of registry from the Postmaster.

STOCK.

All entries for premiums under this head, except poultry, must be made on or before the Friday previous to the exhibition, and all stock must be owned by the person who enters it.

All live stock must have been raised by the person entering the same, or owned by him for at least three months next previously.

Each entry of stock for the pens must specify the breed of the animal, if known, and the age.

Fat cattle, working cattle, draught horses and swine must be weighed on the same scale, in Fitchburg, and will be weighed free of expense. The weight of other stock will not be allowed to be given, unless required by the Committees.

BLOOD STOCK.

Authentic pedigrees will be required.

Durham Bulls,	1st premium,	$5,00
	2d premium,	3,00
North Devon,	1st premium,	5,00
	2d premium,	3,00
Ayrshire,	1st premium,	5,00
	2d premium,	3,00
Alderney,	1st premium,	5,00
	2d premium,	3,00

GRADE OR NATIVE BULLS.

More than two-yrears-old,	1st premium,	5,00
	2d premium,	3,00
Yearling,	1st premium,	4,00
	2d premium,	2,00
	3d premium,	1,00
Calves,	1st premium,	4,00
	2d premium,	3,00
	3d premium,	2,00

These may be of any breed, more than four months old.

MILCH KINE.

Herd of four Cows or Heifers,	1st premium,	10,00
	2d premium,	5,00

The person receiving these premiums will not be allowed to compete for any other, with the same animals.

The Committees will regard age, quality and quantity of milk, expense of keeping, &c.

Cows,	1st premium,	$5,00
	2d premium,	4,00
	3d premium,	3,00
Heifers, three-years-old,	1st premium,	5,00
	2d premium,	4,00
	3d premium,	3,00
Heifers, two-years-old,	1st premium,	5,00
	2d premium,	4,00
	3d premium,	3,00

Competitors for premiums on milch cows, and milch heifers, will be required to certify in writing, at the time of entry, to the weight of the milk during the first seven days in June, and the first seven days in September; and to the manner of keeping, and general management. Cows that calve after the first day of June, may be tried at another time.

HEIFERS.

Intended to be kept for the dairy,

Two-years-old,	1st premium,	$4,00
	2d premium,	3,00
	3d premium,	2,00
Yearlings,	1st premium,	3,00
	2d premium,	2,00
	3d premium,	1,00
Calves, more than four months old,	1st premium,	3,00
	2d premium,	2,00
	3d premium,	1,00
Calves, more than four months old, raised by hand,	1st premium,	3,00
	2d premium,	2,00
	3d premium,	1,00

WORKING OXEN.

Working Oxen,	1st premium,	6,00
	2d premium,	5,00
	3d premium,	4,00
	4th premium,	3,00
	5th preminm,	2,00

STEERS.

Three-years-old,	1st premium,	4,00
	2d premium,	3,00
	3d premium,	2,00

The three-years-old steers will be attached to carts, and tried like the oxen, on the same ground; the cart and load to weigh two thousand pounds.

Two-years-old,	1st premium,	$3,00
	2d premium,	2,50
	3d premium,	2,00

Yearlings,	1st premium,	$3,00
	2d premium,	2,00
	3d premium,	1,00
Calves,	1st premium,	5,00
	2d premium,	3,00
	3d premium,	2,00
	4th premium,	1,00

TRAINED STEERS.

Less than three-years-old,	1st premium,	3,00
	2d premium,	2,00
	3d premium,	1,00

FAT CATTLE.

The entries of fat cattle must specify the mode of fattening. Committees will regard the expense of feeding.

Oxen,	1st premium,	$8,00
	2d premium,	5,00
	3d premium,	3,00
Cows,	1st premium,	6,00
	2d premium,	3,00
	3d premium,	2,00
Three-years-old Steers,	1st premium,	6,00
	2d premium,	4,00

SWINE.

Boars, more than one year old,	1st premium,	4,00
	2d premium,	3,00
Boars, less than one year old,	1st premium,	2,00
	2d premium,	1,00
Fat Hogs, more than eight months old,	1st premium,	4,00
	2d premium,	3,00
	3d premium,	2,00
Fat Pigs, less than eight months old,	1st premium,	3,00
	2d premium,	2,00
	3d premium,	1,00
Breeding Sows,	1st premium,	3,00
	2d premium,	2,00
	3d premium,	1,00

Weaned Pigs, not less than four, -	1st premium, -	$2,00
	2d premium, -	1,50
	3d premium, -	1,00

HORSES AND COLTS.

Stallions, four years old and upwards, -	1st premium, -	10,00
	2d premium, -	6,00
	3d premium, -	4,00
Draught horses and mules, pairs, four years old and upwards, - -	1st premium, -	6,00
	2d premium, -	4,00
Draught horses, single, four years old and upwards, - - -	1st premium, -	5,00
	2d premium, -	3,00
Breeding mares, four years old and upwards, - - -	1st premium, -	6,00
	2d premium, -	4,00
Three-years-old Stallions, - -	1st premium, -	4,00
	2d premium, -	2,00
Three-years-old Geldings, - -	1st premium, -	4,00
	2d premium, -	2,00
Three-years-old Fillies, - -	1st premium, -	4,00
	2d premium, -	2,00
Two-years-old Stallions, -	1st premium, -	4,00
	2d premium, -	2,00
Two-years-old Geldings,	1st premium, -	4,00
	2d premium, -	2,00
Two-years-old Fillies, - -	1st premium, -	4,00
	2d premium, -	2,00
Yearling Colts, - - -	1st premium, -	4,00
	2d premium, -	2,00
Colts, three to six months old, - -	1st premium, -	3,00
	2d premium, -	2,00
	3d premium, -	1,00

SHEEP.

Flocks, not less than six, owned by one person, - - -	1st premium, -	4,00
	2d premium, -	2,00

Cossets,	1st premium,	$2,00
	2d premium,	1,00
	3d premium,	,50

POULTRY.

Dung-hill Fowls, not less than six,	1st premium,	2,00
	2d premium,	1,00
	3d premium,	,50
Turkeys, not less than six,	1st premium,	2,00
	2d premium,	1,00
	3d premium,	,50
Geese, not less than six,	1st premium,	1,00
Ducks, not less than six,	1st premium,	1,00

PLOWING MATCH.

All entries for Plowing must be made on or before the Wednesday previous to the exhibition.

Double Teams,	1st premium,	$7,00
	2d premium,	5,00
	3d premium,	3,00
	4th premium,	1,00
Single Teams,	1st premium,	7,00
	2d premium,	5,00
	3d premium,	3,00
	4th premium,	1,00
Horse or Mule Teams,	1st premium,	7,00
	2d premium,	5,00
	3d premium,	3,00
	4th premium,	1,00
Minors with Steers,	1st premium,	6,00
	2d premium,	4,00
	3d premium,	2,00

No teams or parts of teams will be allowed to compete for more than one of the premiums on plowing.

CROPS.

All entries for Premiums on *sowed Grains* must be made with the Secretary, on or before July 1st. All others on or before August 1st. Immediately after these dates the Secretary will transmit to all competitors a copy of the blank form adopted by the Trustees.

These forms must be returned to the Secretary on or before Nov. 10th, with each question concerning the crop answered, and the certificates properly signed.

No person will be allowed to compete for more than one Premium, with a crop raised upon the same field, however large, with the same treatment.

The Committee may award gratuities for valuable new varieties of grain.

For the most profitable acre of Corn, (of any variety) the product to be not less than 4320 pounds of Corn on the cob, - - -	1st premium, -	$6,00
	2d premium, -	4,00
	3d premium, -	3,00
	4th premium, -	2,00
For the variety of Corn best adapted to our soil and climate, - -	1st premium, -	3,00
For the most profitable acre of Wheat, not less than 1200 pounds of grain, -	1st premium, -	4,00
	2d premium, -	3,00
	3d premium, -	2,00
For the most profitable acre of Rye, not less than 1200 pounds of grain, -	1st premium, -	3,00
	2d premium, -	2,00
For the most profitable acre of Barley, not less than 1200 pounds of grain, -	1st premium, -	3,00
	2d premium, -	2,00
For the most profitable acre of Oats, not less than 1200 pounds of grain, -	1st premium, -	3,00
	2d premium, -	2,00
Half-bushel Herds-grass, - -	1st premium, -	2,00
	2d premium, -	1,00

Half-bushel Red-Top,	1st premium,	$2,00
	2d premium,	1,00

Grass Seeds to be exhibited at the show.

For the most profitable eighth of an acre of Cabbages,	1st premium,	2,00
	2d premium,	1,00
For the most profitable eighth of an acre of White Beans,	1st premium,	2,00
	2d premium,	1,00
For the most profitable half-acre of Potatoes, not less than 6000 pounds,	1st premium,	4,00
	2d premium,	3,00
For the most profitable eighth of an acre Carrots, not less than 5500 pounds,	1st premium,	4,00
	2d premium,	3,00
For the most profitable eighth of an acre of Onions, not less than 2000 pounds,	1st premium,	3,00
	2d premium,	2,00
For the most profitable eighth of an acre of Sugar Beet,	1st premium,	2,00
	2d premium,	1,00
For the most profitable eighth of an acre of Mangold Wurtzel,	1st premium,	2,00
	2d premium,	1,00
For the most profitable eighth of an acre English Turnips,	1st premium,	3,00
	2d premium,	2,00
For the most profitable eighth of an acre of any other variety of Turnips,	1st premium,	3,00
	2d premium,	2,00

FARMS.

Committee.—Jabez Fisher, of Fitchburg; John Brooks, Jr., of Princeton; Isaac B. Woodward, of Fitchburg.

All competitors must make their entries on or before the first day of May. Each farm will be open to the inspection of the Committee on Farms, during the entire season. A detailed statement of the general management, together with the income and expenses for the year, must be furnished on or before November 10th.

For the best cultivated and managed Farms, - - - -	1st premium, -	$15,00
	2d premium, -	8,00

GARDENS.

Committee.—Cyrus Thurston, Joseph Smith, Oliver Kendall, of Fitchburg.

Entries must be made on or before June 1st.

For the best Kitchen Gardens, -	1st premium, -	$6,00
	2d premium, -	4,00
	3d premium, -	2,00

EXPERIMENTS.

PROSPECTIVE.

In accordance with the requirements of the Board of Agriculture there will be paid for the most thorough, exact and reliable experiments upon the proper depth of applying manures, five premiums, as follows:

1st premium, -	$25,00
2d premium, -	20,00
3d premium, -	15,00
4th premium, -	10,00
5th premium, -	5,00

A circular containing full directions for the performance of these experiments, which are to be continued through a rotation of three years —the premiums to be paid in the fall of 1862—will be supplied to all persons wishing to compete, on application to the Secretary.

There will be placed at the disposal of a Committee for the best and most reliable Agricultural Experiments, made in 1860, the sum of $25,00.

FEEDING STOCK.

All entries must be made one week previous to commencing the experiment, and statements furnished on or before November 10th.

For the best Experiments in feeding Neat Stock, - - - -	1st premium, -	$4,00
	2d premium, -	2,00
For the best Experiments in feeding Swine,	1st premium, -	3,00
	3d premium, -	2,00

KEEPING POULTRY.

Entries to be made on or before August 1st, and statements furnished on or before November 10th.

For the best Experiments in keeping Poultry, - - - -	1st premium, -	$2,00
	2d premium, -	1,00

FRUITS AND FLOWERS.

No article intended for the hall will be entitled to a premium, unless it shall have been deposited by 2 o'clock, P. M., on the day before the exhibition, from which time the hall will be occupied by the Committees exclusively, for the remainder of the day and evening. All articles must have been grown, manufactured or produced by the person entering the same for premium.

APPLES.

For the best and largest exhibitions of named varieties, of three specimens each, - - - -	1st premium, -	$4,00
	2d premium, -	3,00
For twelve varieties, of five specimens each,	1st premium, -	3,00
	2d premium, -	2,00
	3d premium, -	1,00
For six varieties, of five specimens each,	1st premium, -	2,00
	2d premium, -	1,50
	3d premium, -	1,00
For three varieties of ten specimens each,	1st premium, -	1,50
	2d premium, -	1,00
	3d premium, -	,50

For the best exhibitions of any one variety,	1st premium, -	$1,50
	2d premium, -	1,00

No person will be allowed to compete for a premium in more than one of the above classes, with the same specimens of fruit.

PEARS.

For the best and largest exhibitions of named varieties, of three specimens each, - - - -	1st premium, -	$4,00
	2d premium, -	3,00
For twelve varieties, of five specimens each,	1st premium, -	3,00
	2d premium, -	2,00
	3d premium, -	1,00
For six varieties, of five specimens each,	1st premium, -	2,00
	2d premium, -	1,50
	3d premium, -	1,00
For three varieties, of ten specimens each,	1st premium, -	1,50
	2d premium, -	1,00
	3d premium, -	,50
For the best exhibitions of any one variety,	1st premium, -	1,50
	2d premium, -	1,00

No person will be allowed to compete for a premium in more than one of the above classes, with the same specimens of fruit.

PEACHES.

For the best collection, - - -	-	$3,00
For the best dish or basket, - -	1st premium, -	2,00
	2d premium, -	1,00
	3d premium, -	,50

PLUMS.

For the best collection, - - -	-	2,00
For the best plate, - - -	1st premium, -	1,00
	2d premium, -	,50

QUINCES.

For the best dish or basket, - -	1st premium, -	1,00
	2d premium, -	,50

GRAPES.

For the best display of Foreign Grapes,	1st premium, -	3,00
	2d premium, -	2,00
	3d premium, -	1,00

For the best display of Native Grapes,	1st premium,	-	$3,00
	2d premium,	-	2,00
	3d premium,	-	1,00

ASSORTED FRUIT.

For the best dish or basket, - -	1st premium,	-	2,00
	2d premium,	-	1,00

FLOWERS.

For the best display of Plants in pots,	1st premium,	-	2,00
	2d premium,	-	1,00
For the best display of cut Flowers, -	1st premium,	-	1,00
	2d premium,	-	,50

In addition to the above premiums, there will be placed at the disposal of the Committee for gratuities, - - - 15,00

VEGETABLES.

For the best collection of Kitchen Vegetables, - - - -	1st premium,	-	$10,00
	2d premium,	-	5,00
	3d premium,	-	3,00
For the best collection of Potatoes, one peck of each variety, - -	1st premium,	-	2,00
	2d premium,	-	1,00
	3d premium,	-	,50
For the best six Marrow Squashes, -	1st premium,	-	1,00
	2d premium,	-	,50
For the best six Hubbard Squashes, -	1st premium,	-	1,00
	2d premium,	-	,50
For the best six Crookneck Squashes,	1st premium,	-	1,00
	2d premium,	-	,50
For the best six Pumpkins, - -	1st premium,	-	,75
	2d premium,	-	,50
For the best six heads of Cabbage, -	1st premium,	-	,75
	2d premium,	-	,50
For the best three specimens Cauliflower,	1st premium,	-	,75
	2d premium,	-	,50

For the best six stalks Celery, -	1st premium, -	$,75
	2d premium, -	,50
For the best peck of Onions, - -	1st premium, -	,75
	2d premium, -	,50
For the best peck Turnip Beets, -	1st premium, -	,75
	2d premium, -	,50
For the best peck of English Turnips,	1st premium, -	,50
	2d premium, -	,25
For the best peck Tomatoes, - -	1st premium, -	,50
	2d premium, -	,25
For the best half-peck Field Beans, -	1st premium, -	,50
	2d premium, -	,25
For the best two quarts of Lima Beans,	1st premium, -	,50
	2d premium, -	,25
For the best collection of Seed Corn, in traces, - - - -	1st premium, -	1,00
	2d premium, -	,75
	3d premium, -	,50
In addition to the above, there will be allowed for gratuities,		10,00

BREAD.

All Bread must have been baked on the Saturday previous to the exhibition.

Wheat Bread, - - -	1st premium, -	$1,00
	2d premium, -	,50
Unbolted Wheat Bread, - -	- -	1,00
Bolted Rye Bread, - - -	1st premium, -	1,00
	2d premium, -	,50
Rye and Indian Bread, - -	1st premium, -	1,00
	2d premium, -	,50

BUTTER, CHEESE AND PICKLES.

Competitors will be required to furnish a detailed statement in writing of the process of manufacturing these articles.

Lump Butter, not less than 12 pounds,	1st premium,	-	$4,00
	2d premium,	-	3,00
	3d premium,	-	2,00
	4th premium,	-	1,50
	5th premium,	-	1,00
June Tub Butter, not less than 25 pounds,	1st premium,	-	3,00
	2d premium,	-	2,00
Cheese, not less than 50 pounds, -	1st premium,	-	2,00
	2d premium,	-	1,50
	3d premium,	-	1,00
Pickles, . - - -	1st premium,	-	,75
	2d premium,	-	,50
	3d premium,	-	,50

HONEY.

For the best specimens of virgin Honey in the comb, - - -	1st premium,	-	$2,00
	2d premium,	-	1,00
	3d premium,	-	,50

MECHANICS AND MANUFACTURES.

For the best specimens of Mechanic and Manufactured articles there will be placed at the disposal of the Committee, the sum of $75,00

FANCY ARTICLES.

For the best specimens of Ladies' Useful and Fancy Articles, of their own Manufacture, including specimens of nice mending and darning, there will be placed at the disposal of the Committee, the sum of $25,00.

ORCHARDS.

Competitors must make their entries on or before the 1st day of June, and furnish a detailed statement of the history and management, on or before November 10th.

APPLES.

For the best Orchards of not less than fifty trees, all having been set out after January 1st, 1856, - -	1st premium, -	$25,00
	2d premium, -	10,00

ESSAYS.

All persons competing for these premiums must file their Essays with the Secretary on or before the 1st of September. Each Essay is to be marked with a motto or design, and accompanied with a sealed envelope containing a corresponding motto or design, and also the name of the author.

The envelopes of the successful competitors will be opened on the day of the exhibition, immediately upon the announcement of the awards.

For the best Essays on some practical subject connected with Agriculture, deemed worthy of publication in the Societies "Transactions," -	1st premium, -	$10,00
	2d premium, -	5,00

ORCHARDS.

PROSPECTIVE.

All persons competing for these premiums, must make their entries on or before the 1st day of June, in the year in which the premiums are to be awarded, and furnish a detailed statement of the whole management from the time of setting out, on or before November 10th of the same year.

PEARS.

For the best Orchard of not less than fifty trees, all having been set out after Jan. 1st, 1856, to be awarded in 1861,	1st premium, -	$25,00
	2d premium, -	15,00

FOREST TREES.

For the best plantation of any kind of Forest trees, suitable for fuel or timber, raised from the seed, not less than 500 in number, which shall be in the most flourishing condition in the fall of 1863,	- -	1st premium,	$25,00
		2d premium,	15,00
		3d premium,	10,00

Entries are to be made on or before August 1st, 1863, and a detailed statement of the entire management furnished on or before November 10th of the same year.

RULES.

All teams entered for plowing and for draught, must have been owned by the person entering same for at least three months next previous, and the team must be driven, and the plow managed by him or by some one usually in his employ.

No article for which a Premium has once been awarded by this Society, shall ever compete for another of the same class, except a higher one.

The several Committees will not consider themselves bound by the terms of the above offers, to award a Premium for anything which they shall deem inferior.

Any person to whom a Premium shall have been awarded in consequence of any deception or misrepresentation used by him, shall not only forfeit such premium, but afterward be incapable of competing for the Society's Premium.

☞ All persons (ladies and minors excepted), not members of the Society, to whom may be awarded a Premium or Premiums amounting to $5,00 or upwards, shall receive a certicate of membership for $5,00, and the balance in cash. If the amount shall be less than $5,00, a deduction of fifty per cent. will be made, unless the individual chooses to make the amount up to that sum, and receive a certificate of membership.

All Premiums not demanded on or before November 30th, will revert to the Society.

TRANSACTIONS

—OF THE—

WORCESTER NORTH

Agricultural Society,

FOR 1860.

PREPARED BY THE SECRETARY.

FITCHBURG:
PRINTED BY E. GARFIELD.
1860.

CONTENTS.

	PAGE.
Address of Doct. Loring,	9
Annual Meeting,	7
Analysis of Premiums and Gratuities awarded,	106
Contents, table of,	3 & 4
Committees for 1861, list of,	109
Finances, statement of,	105 & 107
Introductory,	5
New Members, names of,	107
Officers for 1860, list of,	7
Officers for 1861, list of,	108
Premiums, Analysis of,	106
Premiums for 1861,	109
Premiums, Past, table of,	107
Report on Apples,	48
Bread,	87
Butter,	86
Cheese,	86
Colts, one, two and three years old,	96
Colts, Sucking,	93
Experiments,	74
Experiments directed by the State Board,	101
Fancy Articles,	84
Flowers,	56
Fruits, Assorted,	55
Gardens,	57
Grain,	66
Grapes,	52
Honey,	87
Horses,	88 & 94
Jellies,	87

PAGE.

Report on Mares, - - - - 93
Mechanics and Manufactures, - - - 79
Orchards, - - - - 42
Peaches, - - - 49
Pears, - - - - 50
Pickles, - - - - 87
Plowing, - - - - 42
Plums, - - - - 49
Poultry, - - - - 99
Quinces, - - - 50
Root Crops, - - - - 60
Sheep, - - - - 96
Spading, - - - - 41
Stallions, - - - 92
Swine, - - - - 97
Vegetables, - - - 64
Rules for 1861, - - - - 128
Statement of Brooks, John, Jr., Experiment Feeding Neat Stock, 76
Carter, Solon, Barley, - - 72
" " Corn, - - 69
" " Mangold Wortzel, - - 63
" " Wheat, - - 70
Goodrich, Joseph, Corn, - - 68
Goodridge, Alonzo P., Sugar Beets, - 62
" " Sweedish Turnips, - 61
" " White Beans, - 73
Hayward, Joel, Sheep, - - 98
Kilburn, Cyrus, Barley, - - 72
" " Wheat, - - 71
Safford, Benjamin, Experiment Keeping Poultry, 77
Sawtell, J. M., Orchards, - - 45
Stratton, Albert, Corn, - - 69
" " Experiment with Manures, 103
Woodward, Isaac B., Experiment with Manures, 102
Wyman, W. G., Experiment with Manures, Corn, 104
" " Experiment with Manures, Wheat, 78
" " Sweedish Turnips, - 61
" " White Beans, - - 74

INTRODUCTORY.

The prevalence of a dangerous disease among neat cattle, induced the Trustees of the Society, early in the summer, to withdraw all offers of premiums previously made, pertaining to this most important class of Farm Stock, and thus exclude from the Exhibition all of those valuable animals for which our shows have been named. Notwithstanding this much regretted necessity, which would deprive the Exhibition of its most prominent, and usually most attractive feature, it was thought best not to discontinue the festival; consequently the remaining portion of the list of premiums was carefully revised and enlarged, several entirely new features being added to it, and thus preparations were made for a partial Fair and Exhibition, without the usual Cattle Show, which was held at Fitchburg, on Tuesday, the 25th day of September.

The weather in the morning was pleasant and agreeable; but a heavy shower in the early part of the afternoon, interfered somewhat with the arrangements for the after dinner exercises.

The out of door exercises commenced with a Spading Match on land of David Boutelle, Esq., on Summer Street. This Match, one of the new features of the occasion, which was contested in a spirited manner, and witnessed by a large crowd of interested spectators,

proved quite successful. It was immediately succeeded by the Plowing Match, upon the same ground, which was unlike those of previous exhibitions; the noble ox, whose vast strength combined with gentleness and patience, renders him the most fitting and the most economical motive power for plows in this vicinity, being excluded from competition, no other animal, or article, was found capable of supplying the deficiency, or of creating the interest and excitement common on these occasions.

The trial of Draught Horses was entered into with more zeal, and brought out some powerful and serviceable animals, well trained and well adapted to heavy loads and hard pulls. The show of horses, sheep, swine and poultry was very creditable. The exhibition in the Hall was, on the whole, highly satisfactory; the display of fruits having never been equalled at any previous exhibition of the Society, constant and rapid as has been the progress, for several years past, in this department.

After partaking of dinner, served by Mr. W. F. Day, of the Fitchburg Hotel, the Society assembled in the Lower Town Hall, where the President, Thomas Billings, Esq., after some appropriate remarks introduced Doctor George B. Loring, of Salem, as the Orator of the day. Doctor Loring's Address, which is published herewith, was listened to with deep and earnest interest, by a densely packed audience. It was followed by brief speeches from Alvah Crocker, Esq., D. H. Merriam, Esq., and Doctor John S. Andrews, interspersed with songs from a glee club led by Mr. R. R. Safford, and the reading of the awards of the several Committees.

OFFICERS OF THE SOCIETY FOR 1860.

President.

THOMAS BILLINGS, of Lunenburg.

Vice-Presidents.

MOSES M. GAGE, of Fitchburg.
EZRA KENDALL, of Sterling.

Secretary.

W. G. WYMAN, of Fitchburg.

Treasurer.

T. C. CALDWELL, of Fitchburg.

Trustees.

OHIO WHITNEY, JR., of Ashburnham.
HOWARD GATES, of Ashby.
JOEL HAYWARD, of Ashby.
L. H. BRADFORD, of Gardner.
SOLON CARTER, of Leominster.
C. C. FIELD, of Leominster.
LEMUEL PITTS, of Lunenburg.
DANIEL PUTNAM, of Lunenburg.
JOHN RROOKS, JR., of Princeton.
HENRY BOYLES, of Princeton.
J. T. EVERETT, of Princeton.
N. B. REED, of Princeton.
ANAN STOCKWELL, of Royalston.
JAMES O. PARKER, of Shirley.
SAMUEL OSGOOD, of Sterling.
WARREN SIMONDS, of Templeton.
DANIEL MILES, of Westminster.
BENJAMIN WYMAN, of Westminster.
A. F. ADAMS, of Fitchburg.
T. R. BOUTELLE, of Fitchburg.
JABEZ FISHER, of Fitchburg.
ABEL MARSHALL, of Fitchburg.
J. A. MARSHALL, of Fitchburg.
JOEL PAGE, of Fitchburg.
J. P. PUTNAM, of Fitchburg.
JOSEPH SMITH, of Fitchburg.
EDWIN UPTON, of Fitchburg.
JOSEPH UPTON, of Fitchburg.
MOSES WOOD, of Fitchburg.
I. B. WOODWARD, of Fitchburg.

Member of the State Board.—JABEZ FISHER, of Fitchburg.

☞ The annual meeting for the choice of Officers, &c., is held the first Wednesday in December, each year.

PAST PRESIDENTS AND ORATORS OF THE SOCIETY.

1850—Abel F. Adams—Hon. Charles Hudson, of Lexington.
1851—Abel F. Adams—Hon. R. Rantoul, (appointment not filled.)
1852—Ivers Phillips—Thomas E. Payson, Esq., of Rowley.
1853*—Ivers Phillips—Rev. Horatio Stebbins, of Fitchburg.
1854—Moses Wood—Gov. Emory Washburn, of Worcester.
1855—Moses Wood—Hon. N. P. Banks, of Waltham.
1856—Thomas R. Boutelle—Charles L. Flint, Esq., of Boston.
1857—Thomas R. Boutelle—Justus Tower, Esq., of Lanesborough.
1858—Jabez Fisher—No appointment made.
1859—Jabez Fisher—Hon. George S. Boutwell, of Groton.
1860—Thomas Billings—Doct. George B. Loring, of Salem.

*First year of the incorporation of the Society.

ADDRESS.

BY GEORGE B. LORING.

Mr. President, and Gentlemen of the Society,—

I have returned with new pleasure to my annual service of addressing the farmers of this Commonwealth. Hitherto I have dealt chiefly with abstract subjects, connected with Agriculture—the duty and importance of Agricultural Societies—the social and civil condition of the Farmer—New England farming—Agricultural Education. With this introduction, I now propose to deal with the specific points of interest, which are connected with the business of farming—with crops, with cattle—with manures—with drainage—with soils—with cultivation; for I deem a careful investigation of these topics to be fully as important to the Agricultural Societies in our State, fully as worthy of the thought of the scholar and the rhetoric of the orator, and fully as useful to the farmer, as can be any abstruse discourse upon the civil, or moral, or financial, or political relations of agriculture to the human race.

In selecting the foremost subject of all these, that bearing more immediately upon the great industry, which we have met to honor, that which lies at the foundation of all farming, that which includes the very

first step in agriculture, I have, of necessity, been led to the consideration of the animals which support us in our business, and are the active force of all husbandry.

Besides—I have regretted with you all, the necessary absence of those old friends, whose presence has always given the chiefest interest to our exhibitions, who have given their name to our shows, and whose condition tells as nothing else can, the story of soil and climate and agriculture. The ravages of a dangerous distemper, which threatened to extend throughout our country, and which nothing but the most energetic and decided measures succeeded in checking and I hope removing, have appealed to our prudence, and the public exhibition of cattle has, for this reason, been almost universally suspended. Our thoughts are directed therefore more particularly to our cattle, because they are not here; and out of consideration for their misfortunes and our own, I propose to discuss our dumb companions in this work, open as I may be to the charge of repeating a "twice-told tale."

The subjugation of the animal kingdom to the wants and luxuries of man, constitutes one of the most interesting chapters in the history of practical human advancement. In the beginning, man was created "to have dominion over the fish of the sea, and over the fowl of the air, and over the cattle;" and when by his "first disobedience" he was obliged to resign the enjoyment of reaping the spontaneous productions of the earth, for an unequal contest with thorns and thistles, no decree went forth to release the "beasts of the field" from their predestined bondage. The "bleating flocks" which welcomed the dawn of creation, were sacrificed to

furnish the two first human sinners with "coats of skins," after their expulsion from Eden, into the chilling influences of the outer world; and we are told that the second born on the face of the earth, occupied those primeval hours, amid new and oriental luxurance, as a "keeper of sheep."

From that day to this, the production and care of animals adapted to human wants has been one of the most important branches of husbandry. We have no means of judging of the quality of Abel's sheep, "of the firstlings of his flock, and of the fat thereof." We only learn of Jacob's herds that they were "ring-streaked and speckled." And amidst all the elevation of Taurus the Bull into the heavenly constellations, of Apis into the catalogue of heathen deities, amidst the poetic fancies which created the white bull of Europa, and adorned the ancient gate-ways and arches with the guant forms of stately oxen, and gave the name Boopis (ox-eyed) to the fairest goddess, and filled the classic song of Virgil with the voices of thronging cattle, and gave to the English poet the subdued and quiet picture, as

"The lowing herd winds slowly o'er the lea,"

and expressed the climax of luxuriant possession in "the cattle upon a thousand hills," amidst all this we have never yet learned what skill and practical experience produced the foundation of such pleasing imagery, nor what rural economies guided the earliest farmers in their rearing of cattle.

There is, it is true, an old French proverb—"no cattle, no farming—few cattle, poor farming—many cattle, good farming." And we learn that when Cato,

the wise and sagacious Roman, was asked "what was the most assured profit raising out of land?" made the answer—"To feed well." Being asked again, "what was the next?" he answered—"To feed with moderation." And we can easily imagine the contrast which exists between that aboriginal production of food, which the sinewy savage practices as he pursues the still more sinewy cattle across the plain, and even the first dawn of domestication in the management of animals—and the still greater contrast which exists between the wild and flying drover of the pampas, and that calm and solid and imperturbable specimen of humanity, who winds his placid way from the valley of the Tees to Smithfield market, realizing as he follows his rolling and wallowing Short-horns, the truth of the saying "who drives fat oxen should himself be fat." There is a long interval between "the five hundred yoke of oxen" of Job, and the stupendous breeds which graze upon the fat pastures of England, bred and reared by rule into an exact estimate of the cost of each "pound of flesh." And to us who are engaged in farming among all the modern improvements, it is a matter of special interest to know the processes by which the present breeds and races of cattle have been brought to their existing perfection, and how they can be preserved in their condition. An Ayrshire cow, and a Short-horn bullock, are by no means the result of accident. They have been produced by the application of the highest and most intelligent skill, at the hands of the Bakewells and Parkeses and Mickles and Coolings, under whose treatment, as has been truly said, the "long-legged, slab-sided, ill-bred oxen, are metamorphosed into small-boned,

quick-fattening Devons and elephantine Durhams, (Short-horns); and the "lean, hurdle-backed Norfolk rams become beautiful firkin-bodied South Downs." We, in the United States, have the advantage of the experience and the profits of these distinguished and successful breeders; and it especially becomes us to enquire what advantage we can derive from all that they have done. We must have cattle adapted to our soil and climate, cattle which can be profitably fed, cattle which will make the best return for the labor and produce bestowed upon them.

I am aware that there is no breed of cattle universally adapted to the United States, or even to any one State. The valley of the Connecticut and the hills of Berkshire and Essex, in Massachusetts, differ almost as much as the valley of the Tees and Highlands of Scotland. And we shall find that, in selecting a breed of cattle for each locality, we must be obedient to nature, or nature will take the matter into her own hands, and will bring about a certain conformity between herself and the animals which she is to nourish. When I tell you that Short-horns have not thriven well in some parts of the New England States, and that Ayrshires have shown too great a disposition to take on fat in the rich pastures of Maryland, owing I think, to a bad selection of animals, to a great extent, you will understand what I mean by saying that nature will have her own way in these things.

Still, the necessities and the interest of every community generally control its industry. We may learn from the statistics of Massachusetts cattle husbandry, what her people demand most in this branch of all the

varieties of farming, large and small, among us. I find that in 1855 the number of cows and heifers in that State was 184,008—the number of oxen and steers was 77,511. The value of the cows and heifers was estimated at $4,892,291—the value of the oxen and steers was $3,246,341. The value of the dairy products of that year, consisting of milk, butter and cheese was $2,898,696,28.

In Pennsylvania, the number of milch cows is 530,224; of working oxen, 61,527; of other cattle, 562,195.

In New York, the number of milch cows is 931,324; of working oxen, 178,909; of other cattle, 767,406.

In Georgia, the number of milch cows is 334,223; of working oxen, 73,286; of other cattle, 690,019.

In Kentucky, the number of milch cows is 247,475; of working oxen, 62,274; of other cattle, 442,763.

In Illinois, the number of milch cows is 294,671; of working oxen, 76,156; of other cattle, 541,209.

These figures are very significant with regard to the animals most in demand among us. They show the universal importance of the dairy, while they moreover indicate those States in which distance from the market and the low price of pasture lands, combine to render grazing the most convenient, as well as the most profitable branch of farming. In the valleys of the West and South, and in some parts of New England and the middle States beef is raised to a profit—every advantage being taken of the best breed of cattle for such a purpose. On the East and on the West, on the North and on the South, in every direction, at the fountain head of our grain crops, before corn has been quadrupled on the original price of the producer by long transpor-

tation, and by speculation, there, where the rich valleys and prairies of the West offer an abundant and a cheap sustenance for cattle, and where a propitious climate economizes food and labor, while all about us beef is growing as it were spontaneously; we can never expect to adopt this, as an extensive branch of our farming interest.

It is the dairy therefore which occupies the attention of most of our farmers. Every man who owns land keeps a cow. The milk pail is one of the first utensils provided for carrying on the domestic economy. The rich man is never satisfied until his table is furnished with milk and cream from his own private animal. The poor man finds his establishment incomplete until he has added a shed for his cow; and his farming is never perfected until he occupies the highway as a pasture, and gleans his winter's store of fodder from the neighboring meadows. Every larger farm has its dairy proportioned to its size and cultivation. And as we look abroad over our State, it must be apparent to every intelligent observer, that he will be a true benefactor to our farming community who will improve the dairy stock of New England, and bring it to as high a degree of uniformity as possible, making all due allowance for diversities of climate and locality.

We hear a great deal of the "old red stock of New England." It has many warm admirers; and in the literary devotion of some of its highly intelligent historians and friends, (I had almost said apologists) it promises to become as classic in the bovine annals, as the "Old Red Sandstone" has become in geological pages, under the pen of Hugh Miller. I suppose there

is such a breed of cattle—but what it is and where it originated, I have never found any investigator who could inform me. The first cattle brought into New England, were imported in the Charity, in the care of Mr. Winslow, the Agent of the Plymouth Colony, early in the spring of 1623. To what breed they belonged it is impossible to tell. But as a large proportion of the early immigrants were from Devonshire and the South of England, where the Devon cattle were even then popular, and where that breed had long been established, it is very probable that the earliest arrivals here were strongly tinctured with this blood. It is not very probable that they were of pure blood, for the circumstances of our ancestors did not admit of their entering very largely into fancy stock. It is more likely that the animals were purchased as advantageously as possible in the section of country whence the travellers debarked. The color of their descendents would indicate that they were Devons more or less pure.

There is every reason to suppose that the class of animals to which I am referring, had their origin, as I have suggested; and that in the same manner a larger sized and coarser animal was early found in New York, and a smaller and less thrifty breed, analogous to the Jerseys, were planted in the southern parts of Maryland, and are found there to this day.

Whatever may have been its origin, it has really no characteristics left, which would recommend it to an intelligent breeder. The "old red stock of New England is acclimated it is true—so is the second generation of any imported Short-horn or Ayrshire or Jersey. But the difficulty is that they are a series of accidents.

There is no prevailing type about them. Long-horns, and short-horns and no-horns; straight-backs and crooked; shoulders as compact as those of a Suffolk pig, and shoulders as loose and coarse as the forequarters of a dromedary; fine silky hair, and hair as coarse as bristles; the "feel" of an air-tight stove, and skins as soft and elastic as wash-leather; a heap of offal on the one hand and that superabundance of flesh nicknamed "sandwich," on the other; pocket editions of cows, and huge folios of oxen growing side by side in the same family; cows that will give milk the year round, and cows that go dry four or five months out of the twelve, both of one parentage; these constitute the "old red cattle of New England," which are recommended to our farmers for their special care and attention. There are meritorious animals among them, it is true. It would be extraordinary were there not. But let any man undertake to collect a herd of twenty cows, of superior quality, out of this great New England family, and how long do you suppose it will take him to do it? As I have said, the good ones are the exceptions—they are fortunate accidents. And although there may be in these animals—some of them—a basis for a good native stock of our own, still I must confess that I conceive the farthest remote from them the best position to gain with any prospect of uniformity and superior excellence.

The observation of every man of experience will teach him this. Wherever in New England, or in fact in the United States, you may find a locality famous for good cattle, the high quality of that stock has come from some pure importation. More than fifty years ago, Mr.

John Vaughn, a liberal and intelligent gentleman, who conceived that England without Priestley was no place for a christian to live in, followed that great Philosopher and Divine in his flight to our shores, and settled on the banks of the Kennebec. He imported the Durham cattle of that day, the improved Short-horns of ours; and you may find to this day, grazing in the valley of that river, a large, thrifty, quick-growing, solid massive breed of cattle, the indigenous Short-horns of that region, indigenous, because they have become adapted through generations to that soil and climate, and are now among the most profitable products of the State. Go to Portsmouth and the surrounding towns, and you will find cattle of similar quality and description, the fruits of the more recent importations of Col. Pierce; a native stock now, but possessing certain characteristics, which they never loose either in succeeding generations or in various families. An importation into the valley of the Connecticut by the late Mr. Williams, whose herd has been transmitted to as much judgment and skill and intelligence as can be found even in the old country, has stamped the stock of this section with points of value seldom equalled. I had often been struck with the excellence of the cows in the Aroostook region, and thence to the Bay of Fundy—a well-bred, hardy, dairy-looking race of animals; and I soon discovered that some choice Ayrshires had been brought into that country. The oxen of Meredith Bridge and Lake Winnipisseogee—who has not admired their stately carriage, their rich color, their symmetry of form, their thrift and their size and endurance? They are the

modern Devon blood mixed with Short-horn, and engrafted upon that soil, and brought to a high degree of perfection by judicious care. In an obscure town in Essex county, Massachusetts, there was a remarkable cow, known of all men thereabouts, distinguished from all "the old red stock," for her outline, her milking qualities, her beauty; her owner said she was English; on enquiry I found that she had descended from a herd of Ayrshires, brought into the country many years ago, and now nearly extinct. There are certain portions of Essex county where I can almost always replenish my herd of cows without much difficulty, and with many chances of finding good animals; and I always find that either Parsons imported into those regions, or such men as Pickering and Newell brought among us choice imported animals from other parts of the State. And I think you will find that whether you are searching for beef or milk, as a general rule, the farther you get from the "old red stock," the better off you will be, always granting that they possess certain qualities which furnish an excellent opportunity for improvement.

I was called to account last winter by one of the religious newspapers of the day, which seemed for the time to have strayed away from that fold to which it was specially devoted, because in the agricultural discussions of the legislative season, I had advocated the importation of cattle, and the introduction of the best foreign breeds into our own country, while at the same time I urged the possibility of improving the quality of our horses, by confining ourselves to the best breeds which we now have among us. A word in defense and

explanation may not be inappropriate here. The picture of our so-called native cattle, which I have drawn, is not inaccurate. Wherever I find a high average of dairy produce per cow, as in Vermont and Massachusetts, I find also an infusion of foreign blood, brought here and planted on our soil, for the special purpose of establishing a dairy stock. When, on the other hand, I go to Kentucky and admire her herds of beef cattle revelling in the rich blue grass pastures of that State, I find that her farmers availed themselves of the patient and long continued efforts of beef-breeders abroad, as the foundation of their work. In the dairy herds of Vermont may be traced the strains of Ayrshire and Short-horn blood, which have entered the State from the Scotch farmers on the north, and from the enterprise of Massachusetts on the south. It is by the same process that improvements in our cattle have been made throughout our country. And the reason is this: Having no specific stock of our own, no stock devoted to any special purpose, we have been obliged to look elsewhere for it. Half a century ago, it would have been almost impossible to have discovered what the neat stock of New England was intended for, whether for beef, or the dairy, or for the simple purpose of consuming the produce of our farms, or for all these objects combined. The whole system of breeding—in fact, the whole community of our cattle was in utter chaos and confusion, out of which no man considered it possible to bring order. Accidental importations of valuable animals soon began to produce a very marked effect. And observing farmers soon found that size, symmetry,

adaptation to any peculiar want or purpose could be obtained by a judicious selection of pure-blood. A little herd of Devons, for instance, whose lineage commenced with the early days of agriculture in England, was found to give new vigor and style and increased value to the stock of the neighborhood into which they were imported. A few stray animals from the Channel Islands or the north of France, would leave a new type and a somewhat improved one too, in the region where they happened to land. The marked effect of Durhams, as they were then called, and in later years, of Ayrshires, of Galloways, and Holsteins and Herefords, was so evident that even the most careless farmer became anxious to avail himself of the improvement. For he found in the confusion of shapes and sizes and colors by which he was surrounded, that "blood will tell," and that an animal intended for a specific purpose possessed qualities and powers unknown to any mere accident. The old-fashioned Yorkshire cow, the great cow of the London dairies, whose immense frame has served as the foundation of a most valuable race of animals in England, did much to increase the dairy products of our farmers, belonging as she did to a race of milkers. And it soon became evident that the most rapid and economical way to arrive at any desirable point, was to begin at once at the fountain head, wherever that had been fixed.

Whoever at the present day desires a dairy herd, can find animals bred for that special purpose, for many generations, on the farms in Ayrshire, and which have been brought by care and cultivation to the highest

standard of a milking cow. He cannot find that in this country—he must go abroad for it. So also of animals for beef, work, &c. There are better breeds of cattle in England and Scotland than there are in our own country—with the exception of those imported by us, or descended directly from our importations.

Now, this is not the case with regard to our horses. The American Trotting Horse is an animal after his own kind, and I venture to say unequalled by any horse on the face of the earth, in all that makes such an animal truly valuable for all kinds of work. It takes true equine genius to make a trotting horse. His mechanism must be as well balanced and as symmetrical as a locomotive. Propelled as he is by one quarter at a time, his progress is the result of nerve and strength and decision, unknown and utterly ignored in that leaping bounding motion where one end follows the other, as is the case with the running horse of the English turf. He must be solid in his foot, strong in his limb, firm in his back, free and easy in his stride, and, above all things, calm and collected amidst all those trials of the track and the road, which tend to throw him off his balance, and reduce him to the level of the hare and the fox and the grey-hound and the English race-horse, running helter-skelter in a natural manner, without the exercise of any faculties, except those with which nature endows the coward when he flies from danger or conflict. The American trotter requires bones and muscles and brains. And when he stands high in the list, he has them all. For compactness of form and ease of motion, for strength, endurance and sagacity, he is unequalled.

The beautiful description which Virgil gives of a good steed in his day is just as true in our own :—

"Choose with like care the courser's generous breed,
And from his birth, prepare the parent steed;
His color mark, select the glossy bay,
And to the white or dun, prefer the gray.
As yet a colt he stalks with lofty pace,
And balances his limbs with flexile grace:
First leads the way, the threat'ning torrent braves,
And dares the unknown arch that spans the waves.
Light on his airy crest his slender head—
His body short, his loins luxuriant spread;
Muscle on muscle knots his brawny breast,
No fear alarms him, nor vain shouts molest.
O'er his right shoulder, floating full and fair,
Sweeps his thick mane, and spreads its pomp of hair;
Swift works his double spine, and earth around
Rings to his solid hoof that wears the ground."

Now we have this animal as the natural product of our farms. I know not how it has come to pass—but it is a fact, that the farmer's horse in New England is peculiar to himself, and is moreover peculiarly an American institution. He may be descended from the thorough-bred, for anything that can be said to the contrary; but the farther he is removed from that rather equivocal class of animals, the more truly does he become a trotter. I look upon him as one result of that social and civil equality which in our own country makes one man's time as valuable as another's, and which authorizes the farmer's boy to take the road from the squire, or the parson, or the doctor, whenever his colt can do it. Every man in this country who can keep a horse, wants a good one, and when he has got him, he wants to avail himself of his horse's powers,

to make the distance between the mill or the meeting-house and his own home, as short as possible. We all drive on the road; and this, combined undoubtedly with certain fortunate aptitudes of climate and soil has given New England her valuable race of trotters.

Why should we go abroad, then, with the expectation of improving what we now have? While we have our Messengers and Black Hawks, and other families of Morgans, so diverse in size and shape, so well fitted by form and temper to every labor, and yet possessing a kind of prevailing uniformity expressed by the phrase "a horse of all works," can we hope to derive any benefit from a resort to those specific breeds of horses which in England are devoted each to its speciality? There is no necessity, for instance, for importing a Suffolk Punch—for half a day's search would undoubtedly provide you with just such an animal, raised on your own soil. We need not import hunters, for we have no need of any such horse among us. The Cleveland Bay, valuable as a carriage horse, could hardly expect to improve the stylish breeds found South and West, and distinguished more for style than anything else. And when we consider that it is only after we have reached many removes from the thoroughbred, that we have arrived at good trotters; when we remember that neither in shoulder, nor leg, nor quarter, nor general mechanism, is there any analogy between the thorough-bred as raised in England, and the trotter as raised in our own country, we may well ask ourselves what advantage is to be derived from the introduction of such animals among us.

It is because we have already what we want in the way of horses, that I am opposed to the introduction of foreign blood among them. Our customs and modes of life, together with perhaps a fortunate outset, and certain natural advantages, have produced for us better horses than we can import. If this were the case in regard to our cattle, I should entertain the same opinion with regard to them. But it is not so. We have, partly by accident, and partly by design, been engaged for years in developing a race of trotting horses. But we have not developed races of cattle, peculiarly adapted to the dairy or the shambles. That work is still before us; and we can only accomplish it by obtaining such animals, wherever they can be found, until we have established the races for ourselves.

With this estimate of the value and importance of the various breeds of cattle in England, and the advantage to be derived from their introduction into this country, I am aware that some discussion of their respective merits will be expected of me. There are certain qualities belonging to each of them which present strong temptations to the farmer; and it is moreover undoubtedly true, that certain modifications take place in all, after their introduction to this country, which may be good or bad, according to the quality of the importation, and the influences to which it is exposed. Senator Douglas once told me that Illinois was producing better Short-horns than could be found in England; and I have no doubt the breed does improve on the fine pastures and under the mild sky of the West and South-west. Thorough-bred Devons seem never to have maintained in this country the charac-

ter they have secured in England. Both as cows and oxen they are graded here to great advantage, but as pure animals they seem to degenerate. I have never seen so good a Jersey cow raised in this country as I have seen imported. Of Herefords, West Highlanders, and others, we have hardly had good opportunities to judge—the former not having increased to any great number, and the latter hardly having appeared among us. Ayrshires, judiciously selected and properly treated have taken kindly to our soil and climate, and in many instances have improved upon the originals.

So far as the products of the various breeds of cattle are concerned, there are certain facts worthy of notice. There is no doubt that the beef of the West Highlander, of the Devon, and perhaps of the Galloway and Hereford is better than that of the Short-horns—not so profitably raised—but more palatable. I found no beef in England, where roast beef appears as it does in our own country, so good as I find in the markets of New England, and especially in those of New York, Philadelphia and Washington. So far as my observation goes, and so far as I can learn from dairymen abroad, cows go dry, on an average, twice as long in this country as they do in Great Britain and other parts of Europe. These various facts are worth remembering, while we discuss the quality of different breeds of cattle, whether for beef or milk.

It having been determined by the English farmer that the production of beef and milk cannot be profitably combined in the same animal, the chief attention of breeders there has been turned to what might be called a division of the question. Agriculture in Eng-

land is conducted in such a manner as to render it remunerative to the farmer, as well as useful to the great mass of consumers; and the raising of beef and mutton has become a very important and well regulated branch of husbandry. Not only have systems of economical feeding been adopted, but great attention has been paid to the production of animals best adapted to growth and early fattening. For many years the Herefords and Devons stood in the front rank, in all beef-growing districts. But it was found, as was supposed, that the Hereford was unfit for the grazier until after he was two years old, and that although he took no fat readily after that period, still he was hardly a remunerative animal to rear up to that age, and the profit to be made on him came not to the grower, but to the feeder who purchased him for stalling or grazing. The same fault was found with the Devons, which, as ox labor was superseded very much by horses, became in less demand for draught, and were found in the end, although fattening rapidly after reaching maturity, to have cost more than rapid growers and early fatteners. It was these considerations which induced Charles and Robert Colling to select from various herds of the superior animals found in the valley of the Tees, a choice few from which they succeeded in creating the famous Improved Shorthorn, which has probably already gained the highest position among English beef-cattle. From the time of the sale of Charles Colling's herd, Oct. 11, 1810, up to this time, the breed has continued to rise in public estimation, and the fabulous prices secured for the animals, both in England and in this country, indicate a

high reputation, whether deserved or not. There seems to be no doubt that they are a very profitable animal to raise in certain sections, reaching early maturity, taking on fat during the whole period of growth, and attaining great size. So far as our observation goes, they make very superior grades, and unless allowed to degenerate by scanty feeding and improper care, in which case they become raw, misshapen brutes, they are a valuable acquisition to almost any district. They have their defects, however, as what races have not? Short-horn beef, although profitable to the producer is not so to the consumer—being coarse in texture, poorly marbled, and from its early maturity, deficient in those nitrogenous compounds which are the true sources of nutriment. This is not true to so great an extent of the grades as of the thorough-breds; and while I have no doubt that pure-bred Herefords or Devons would be more profitable for the New England farmer, whose mode of feeding is not calculated to produce early maturity, I find many judicious farmers who believe that an admixture of Short-horn blood, properly distributed, is of greater real profit than the same use of either of the others. I have seen, moreover, grade Short-horn cows in New York and some sections of Massachusetts, whose milking properties are extraordinary, notwithstanding the universally acknowledged fact that pure-bred Improved Short-horns lay no claim to being considered dairy animals.

I do not mean to say that these remarks will apply to every section of our country. You will however sustain me in applying them to many sections; and I am supported in my position by the testimony of many

intelligent farmers. One thing however I do find universally acknowledged, viz: that Short-horns, pure and grades, require an abundant supply of nutritious food and careful shelter and shade. It must be said of them that they are not universally applicable, and that as an animal for the small farmer, they are hardly appropriate. I find the same view taken of them in some parts of England, as in the county of Shropshire for instance, where Herefords of every description are decidedly preferred—not as I can learn for the dairy at all, in any form either pure or grades—but for easy feeding and rapid fattening, after reaching maturity.

I have dwelt upon Short-horns as the foundation of a grading stock for some portions of our country, because they have attracted more attention than either Herefords or Devons—because they have imparted from their size and show, more striking characteristics to our cattle than either of the other breeds—and because they have attained so high a celebrity in their native country. They have moreover a strain of milking blood in their veins, which has shown itself in grades, with great advantage to the dairy. Perhaps the same can be said, indeed, of Herefords or Devons, the latter of which have been extensively tried, and the former of which for their hardiness, shape, size and thrift, deserve more consideration than they have yet received. It seems to me that for all our various localities they possess a degree of applicability, which might be very valuable to us. Short-horns must be fed from the start. Herefords can be kept low until two years old and then fattened. Perhaps I might say that Short-horns are better adapted to the mild climate and rich pastures of

our middle States, and Herefords and Devons to more northren latitudes, where early growth is often unavoidably checked.

But as I have stated, observation and statistics show that the dairy is one of the most important objects of the cattle breeder, and that it is to the dairy that we are to look for our largest profits. In this class of animals, the Jerseys have become too well known in Massachusetts to need much comment. They were described by Parkinson, a distinguished English writer on cattle in 1810, under the name of Alderney, as follows:—

"They seem to be a very tender species. Their color is mostly yellow, with white or mottled faces, and white interspersed on various parts; they have short, crumpled horns; their size is small, and they are of as bad a form as can possibly be described; the neck is very thin and hollow; the shoulder stands up, and is the highest part; hollow and narrow behind the shoulders; the chine is nearly without flesh; the hucks are narrow, and sharp at the ends; the rump is short; the thighs are thin; the bones are small; and they are narrow and light in the brisket; the milk is said to be rich, which it ought, as they give but a small quantity, according to the food they consume."

This discription will apply to many of the Jersey cows of the present day—although the form of some families of them seems to have been much improved, within the last few years. They are now in many respects, when well selected, striking looking animals, and make a beautiful living ornament to parks and meadows. They are almost strictly gentlemen's cows, having obtained a high reputation for butter making, and being great consumers

of food. Few imported animals present such remarkable differences—many of them bearing a close analogy to the description given by Parkinson, and others being symmetrical, uniform, compact, graceful, rotund, and as remarkable for the small quantity of milk they yield, as for the beauty of their persons. There are, however, exceptions to both these rules—and I would instance Flora and Countess, imported by the Massachusetts Society for Promoting Agriculture, and a cow imported by Charles G. Loring, Esq., of Boston, Mass., as a specimen of what a cow should be in shape and capacity. There are few Jerseys like them.

Jerseys never look well under ordinary circumstances. They require good food, good shelter, a good looking stable, and cleanliness to bring out their attractive appearance. The grades, so far as my observation goes, are very fair milkers, but not very remarkable; and I doubt if in any form they will ever become favorite animals with our farmers.

Whoever proposes to purchase the thorough-breds cannot be too careful in his selection—for the difference between the genuine, well bred and well shaped Jersey, and the spurious animal which comes from any of the Channel Islands or the north of France, and is driven by dealers through the principle markets of England for sale or barter, is as great as can be conceived between any two animals.

The dairy-farming, which is especially a part of the business of the farmer, in the eastern States, finds its analogy, not in Yorkshire, nor in the Isle of Jersey, but in that portion of Scotland where the soil and climate are more like our own, and where the develop-

ment of dairy-stock has received the attention of some of the most intelligent men of the community. The farmers of Ayrshire and Wigtonshire find in their immediate neighborhood a market for fresh dairy products, and as there is no profit in feeding cattle for beef alone, in that region, they have applied themselves to the work of obtaining the best dairy cow, that can be put together. This is the origin of the breed of cattle called Ayrshire. They are comparatively modern in their introduction into the list of breeds, not having been mentioned at all by Parkinson, fifty years ago; and being derived as many assert, from a mixture of Short-horn blood with the native blood of the region. We know herds which have been forty years at least, in being brought to their present condition.

These animals are the model of a dairy cow. Hardy, well shaped, of medium size, and giving ample return for the amount of food which they consume, they are wonderfully adapted to our short pastures, and to our long, cold winters. Without presenting any uncommon peculiarity, excepting a remarkable symmetry, they would be selected at once by one of our intelligent dairymen as the pattern of a cow suited to his purposes. They are very analogous to our American trotting horse, in all those points which unite to make a superior animal. In their deep bodies, strong, clean heads, well set, fine, and at the same time muscular necks, sharp withers, sloping, prominent well set shoulders, straight backs, broad hips, long quarters, and fine, but not too small, bone; in their size, neither small nor large, they possessess all the points, as you will see, of our best native horse—a resemblance which will be

found to a remarkable degree, whenever you find a really good cow.

For the gratification of those who are exact in such matters, I will give the measurement of a four year old cow which I imported from Scotland last year, and which had received there a succession of first prizes as the best model of a cow raised in that country.

Girth, 6 ft. From the top of the shoulder to the tail, 4 ft. 6 in. From the hip or hook bone to the point of the hip, 1 ft. 7 in. From the point of the brisket to the rear of the udder, 4 ft. 6 in. Length of udder, 1 ft. 6 in. Distance from udder to brisket, 1 ft. 10 in. Distance between the teats from front to rear, 4 in.; from side to side 2½ in. Height, 4 ft. 2 in. Width across the hip, 1 ft. 9 in. Width across the back, 1 ft. 5 in. Length from the elbow to the point of the shoulder, 1 ft. 2 in. Length of fore leg, 2 ft. 2 in. Length of neck, 1 ft. 11 in.

In form she is as well balanced and symmetrical, as an animal can be constructed. Her back is a perfect level; and with the perpendicular bearing of her limbs, and her evident strength, a superficial observer would say at once she was admirably constructed to bear the wear and tear of a dairy farm or a milk farm, a sphere of life as trying to a race of cows as a livery stable or a truck is to the race of horses. No feeble animal can endure it.

The cow to which I refer, commenced her operations by giving twenty quarts of milk per day, at three years old.

I consider the Ayrshire cow as the universal cow for the dairy. She makes beef enough, when properly

reared and fed. She yields an abundance of milk for cheese or the market; and stands high as a producer of butter.

Among them is a race of animals partaking strongly of the nature of Short-horns, round, compact, thick meated, close shouldered, easily fattening, which are to be avoided. Some are found also with a peculiar shelliness of skin, a hard, unyielding inelastic feel, which is very objectionable. Avoiding these two defects, you can hardly fail of purchasing a good cow, taking the average as they appear on the farms in Ayrshire.

The oxen of this breed are remarkable for activity and vigor, and for great thrift when fed for the shambles.

I call your attention to this hasty review of the various breeds of cattle, not for the purpose of enabling you to determine without further investigation, what breed is best adapted to the district in which you reside, but in order to impress upon your minds the importance and interest of such a study, and to introduce you to one of the most pleasing and profitable branches of agriculture. I need not tell you how we all depend upon the dumb creatures which wait upon us during life, and at their death feed and clothe us. From valley and hill, from prairie and mountain, they come flocking in, the patient servants of their imperious master. They offer themselves a living sacrifice to the majesty of civilized man, suffering as he yields to poverty and hardships, and barbarism, and rising with him as he rises, into his conditions of luxury, and ease, and economy and fitness of purpose. The great community of cattle! who shall write its history? How

it has been controlled by the social laws which make the world what it is—how it enables the great community of man to dwell here on the face of the earth —how it stands, the pedestal upon which a nobler fabric rests—how its condition tells the tale of races higher in the scale of being. That strange and mysterious relation between man and animals, everywhere recognized, everywhere felt—that mutual dependence, each upon the other—that intelligent appropriation and cultivation on the one hand, that unconscious and entire obedience and submission of all the great vital forces on the other—who can tell it all? And superior as we may be, powerful, controlling, and independent, can any man contemplate the magnitude of the change, were the "popular sovereignty" of this great community of cattle to be asserted, and man's dominion be suddenly broken? From the feeding of armies, and the sustaining of the busy throng who fill places of power and trust, down to the nourishing drop which supports the feeble child in its first grasp upon life, it is the domestic animal which hears our long and constant human appeal, and never hesitates in its devoted and self-sacrificing reply. In parks, in meadows, before the cottage door, with an entire and unresisting submission to circumstances, there come to man, from his dumb ally, food and raiment, and an unceasing claim upon his skill and his humanity. It is the animal kingdom which forms one of the liveliest charms of a cultivated landscape, in motion and in repose. And man never succeeds in subduing the earth, and in revealing its quiet domestic beauty, until he has enlisted those servants, without whose aid agriculture must fail, and whose value is

commensurate with the progress made in the great business of applying all animate and inanimate nature, to the necessities and adornments of civilized life.

Is it surprising, then, that so much science and skill and taste should have been devoted to the development of this great community of cattle? It is a work which has roused the deep agricultural instinct of Great Britain, and has received the patient investigation of some of its profoundest students of agriculture and of its best practical farmers. Never did the crops of that well-cultivated island, perform their completest service in feeding its people, until the cattle were brought to the most profitable shape and quality for feeding. Her wisest men have felt the importance of this matter. Her Statesmen have set ours one good example—an example not forgotten by our Webster and Clay when they colonized the farms at Marshfield and Ashland with the choicest breeds of cattle, as of practical service to their countrymen.

The researches of science into the questions of animal life, as manifested in the various forms adapted to different purposes, are also full of interest and profit. That quality best fitted for fattening or for the dairy, that shape most appropriate to feed or to work, may be, aye has been, established with almost unerring accuracy, for the benefit of the family which keeps a single cow, as well as of the herdsman whose pastures are the warm and teeming valleys of the West, and of the New England farmer whose muscles have grown rigid in the heavy toil of procuring and storing food for his dairy herd. We are taught moreover to feed by chemical laws, and olein and margarine, albumen, sugar, starch,

woody fibre, fatty matter, mineral matter and moisture, are parcelled out in the varieties of food with the accuracy of mathematics, and with proper instructions in the business of producing butter, cheese and milk, or beef.

In order that you may understand the many and various ways in which cattle are connected with the wants and arts of life, and the depth to which science may go in its explorations, I beg leave to read to you an extract from a letter addressed to myself by that wonderful example of modest wisdom, and patient application, and profound knowledge, Professor Agassiz, on the occasion of receiving from me the skeleton of an uncommonly finely developed Ayrshire cow, for the Museum of Comparative Zoology at Cambridge. He says :—

"As I intend to make a very complete collection of all our domesticated animals, allow me to submit to you my desiderata, in the hope that you may in course of time be able to help me in obtaining some of the subjects I want for that purpose. It would be highly important to ascertain, if possible, where and when the different breeds of cattle now growing in America have been introduced, and, if possible, to track some of the earliest breeds to their present distribution over the whole country, so that the changes they have undergone in America might be ascertained.

With reference to the collection to be made, I wish to obtain, at first, skeletons of a bull, cow and calf of each breed, which will of course require much time and perseverance. As such choice specimens as are wanted would always be valuable, opportunities should be

sought to obtain specimens that have accidentally died, in order to lessen the expense. After getting such a standard set of the two sexes, and the young of each breed, a larger number of herds, as the most characteristic part should be added, in order to ascertain the minor variations that may occur with age in each breed, and especially to display the gradual growth of the horn. Next it would be well to have skins, or at least portions of the skin, in order to ascertain how far the condition of the skin itself influences the growth of the hair; and finally tanned skins, that the relative merits of the latter may be looked into. * * * I shall make an attempt to have some animals stuffed in order to see how far in that way, the general appearance of the animal might be satisfactorily preserved."

"I should like also specimens of the young of the various breeds, of all ages."

"You would greatly oblige me, if you will call my attention to any work upon the cattle that may be worth reading; and also upon the statistics of the trade in leather in all parts of the world."

May I not call on all who hear me to aid this great scientific explorer in his researches into the history and condition of those animals, to which we are all attached, and which deserve all our care?

Gentlemen and Ladies, I have spoken for cattle—for our dumb companions—for the patientest servants of man—for our right arm of power in tilling the earth—for the poor man's comfort and support—for the rich man's luxury—for the cottage pet, and the living wealth of great farms—for the abundance of "animated nature," in the most important form in which it is

bestowed upon man, for his support, and for the beautifying of the earth on which he lives. I have merely opened the subject for your further investigation. It is not a trifling matter in the topics belonging to agriculture. For, although the boys may feed "old brindle" on meadow hay, and the girls may milk her scanty mess—still "old brindle's" superior relations occupy a high place in the economy of farming, and hold in their capacious maws a large proportion of the profits of the business and of the means by which it is carried on; when you have learned how to select a good animal, and how to feed it profitably, and to make the most of it, either for beef or the dairy, you have taken a long stride in the work of successful farming, and have accomplished what some of the most sagacious and intelligent and capable agriculturists have arrived at only after years of accurate experiment and close observation. Fertile fields and good crops are a bright testimony of skillful agriculture—but, after all, none but a good farmer knows how to select a good cow, and none but a good farmer's wife knows how to use the cow to the best advantage.

REPORTS OF COMMITTEES.

SPADING.

There were eight persons who entered their names in season, appeared on the ground, drew their lots, and contended for the premiums. Each lot contained one hundred square feet, and they were required to spade it nine inches deep, and prepare it as for a seed bed. The time occupied varied from twelve minutes thirty-three seconds to twenty-seven minutes fifty-five seconds. A portion of the lots were very well done. With some there appeared to be too much haste to get through the task, without sufficiently pulverizing the soil.

The Committee award the following premiums:

1st, Elson W. Manning,	$5.00,	Time	26m.	6s.
2d, John Donnoven,	4.00,	"	17	20
3d, Hubbard B. Fuller,	3.00,	"	27	55
4th, Daniel Duggan,	2.00,	"	26	5
5th, John Morrally,	1.00,	"	12	33

For the Committee,

ABEL F. ADAMS.

PLOWING.

There were seven entries to plow with horse teams, but for various reasons there were but two on the ground to plow. We regret very much that there were no more to plow, as there were four premiums offered; the two that plowed did their work in a good workman-like manner, one with a double plow and one with a single, and we were unanimous in awarding the two first premiums as follows:

1st, to Martin Clifford, of Fitchburg,	$7,00
2d, to Albert Stratton, of Leominster,	5,00

For the Committee,

JOSEPH UPTON.

ORCHARDS.

The only entry for premiums offered for the best apple orchard planted subsequent to January 1, 1856, was made by Mr. J. M. Sawtell, of Fitchburg, and the Committee have awarded to him the second premium of $10.00.

For Mr. Sawtell's method of planting and culture, reference may be made to his statement herewith transmitted.

Most of the trees in his young orchard appeared to be making good growth, though not the most vigorous, particularly when we take into consideration the care bestowed upon them, the good quality of the soil, and the favorable location. Two or three had been injured

by the borer, and some others gave satisfactory evidence to the Committee that they were not of the best quality when taken from the nursery. Notwithstanding this less flattering appearance of some of the trees, still we have no doubt that, with a continuance of the same care and judicious culture, Mr. Sawtell will, in a few years, be in possession of a fine orchard, and enjoy plentifully the rich fruits thereof.

The appearance of a few trees in this orchard exemplifies the great importance of selecting none but good ones for planting. A poor tree is not worth transplanting even if obtained as a gift, while a good tree is cheap at double the price usually paid. In purchasing trees for an orchard, regard should also be had to the distance from the ground at which the lower limbs start out from the trunks. As there is no doubt that the whole ground of an orchard for some years at least after planting, if not for its whole existence, should be kept under cultivation, and as this can be done easier with the plow than the spade, it becomes necessary that the lowest branches should be out of the way of the yoke and horns of oxen, or the harness and back of the horse. For this purpose it has been found by experience that five feet from the surface of the ground is the least distance at which the limbs should be allowed to remain.

So too in orchard culture. Apple trees should be set out at least two rods apart; otherwise, when mature growth is attained, the branches of adjoining trees will interfere with each other, compelling them to tend upward for light and air, and thus subjecting the owner to the trouble and hazard of ascending lofty trees to gather his fruit.

In regard to the danger of making the apple tree grow too rapidly, particularly those varieties which are adapted to our climate, we apprehend that all fear in that respect is well nigh groundless. The object of the orchardist should be to obtain trees large enough to produce something worth harvesting before they begin to bear fruit. What he wants in the first place is a *good sized tree;* and there need be no fear that the Baldwin, R. I. Greening, Roxbury Russett, Hubbardston, Peck's Pleasant, Gravenstein, Porter, William's and such like kinds will grow too fast. The subscriber has an orchard, and there are others in this vicinity similar, the trees of which were set out only ten, eleven or twelve years ago, and this season many of them have borne four or five barrels of large, fair fruit, and at the same time have made a growth at the end of the limbs of from one to two feet. The trunks of some of them are more than two feet in circumference, and the extremity of the branches of the few that were planted only twenty-one feet apart already touch each other, and to the eye of the pom logist they present an appearance of healthfulness and vigor delightful to behold. The trees in this orchard were not allowed to bear fruit for the first seven or eight years after being set in the ground; the soil has been in constant cultivation with some hoed crop, receiving only a very moderate application of stable manure spread upon the surface before plowing, together with such a quantity of muck, ashes, old plaster, bones, &c., as could be obtained without too much expense, the amount of the whole being quite small. The crops of fruit that these trees are sure to bear every year, or alternate year, will in the future retard their

growth sufficiently to satisfy the most timid. Just compare such vigorous, healthy, fruit-bearing trees with thousands that may be seen anywhere, planted in grass ground, or checked in their growth by the borer, maintaining a feeble, sickly existence, and producing a bushel or two, perhaps, of wormy and knotty fruit, and that too quite as early as the most impatient and short-sighted might desire, and all apprehension of too rapid growth will vanish as dew before the morning sun.

C. C. FIELD, *Chairman.*

J. M. SAWTELL'S STATEMENT.

ORCHARDS.

The orchard which I offer for the Society's premium consist of fifty-six trees of the following varieties, viz: Minister, Foundling, Gravenstein, Porter, Sopsofwine, R. I. Greening, Ladies Sweet, Liscomb, Baldwin, Northern Spy, Mother Apple, Hubbardston, Nonsuch, and some that I do not know the names of. Forty of them were set out in May, 1856, and the rest in May, 1857. I obtained them of the Shakers at Groton, at twenty-five cents each. They were two and three years from the bud. The holes in which they were set, were dug from four to five feet in diameter, and from fifteen to twenty inches deep, and thirty feet apart. The land was in sward, bearing a light crop of grass. Many places the ledge was laid bare in digging the holes. The sods were cut in pieces and returned to the holes and put about the roots with the best of the loam, the sods serving to keep the soil loose and moist about the roots.

The trees made some growth the first year, and I have not lost a tree, although inexperienced in the business of setting out trees, I felt that my first attempt was quite successful, that by improving the spare moments, (as I have,) I might raise (with the blessings of God to aid me) a nice little orchard. The first year I put about them a compost of chip-dirt, leeched-ashes, and some stable manure, about one-half of a wheelbarrow load to each, and the soil stired two or three times during the season. The next year I set out the remainder and plowed the ground, spreading a fair coat of stable manure upon the furrows and planted it with potatoes and corn, principally potatoes. I have used leaves and leaf mould from the woods two or three times, and think it good, as it keeps the soil light and in good condition, but I have not been able to discover any great effect to the trees from its use, as I have not used it long enough to test it; but I don't see why it does not contain the natural elements of the tree, and may be well adapted to nourish and keep them thriving naturally. The trees have been washed with soft-soap and water, about as thick as cream, by mixing them together, or nearly as thick, once or twice each year, and I think with good effect. I think the soap-suds that runs down about the trunks of the tree has a tendency to keep the fly away, that lays the egg, (which hatches the borer). I have experimented in cutting off limbs at different times of the year, and I like June the best. At other times when cut, the wound does not heal as readily as when cut in June, but the bark turns black and the wound is a long time healing, and in some cases has not healed yet. When in June, I have noticed that the bark keeps bright,

and the wound soon heals. The borer has troubled me some, but I look after him twice each year with knife and wire, and have thus far been able to keep a little ahead of him, with one or two exceptions, when he has nearly destroyed two trees, yet they may recover in time. My aim has not been to make great growth of wood, but to keep them in a good thriving condition, and let the wood harden, that they may withstand the severe winter weather which this climate is subject to. I have noticed that uncultivated trees bear the most regular, but of coarse not as good fruit, as highly cultivated ones. I have cultivated the ground with roots and tomatoes, spreading cow, horse and hog manure upon the surface. I fork up the soil in the spring and fall about the trees, and hoe about them the same as other growing crops, and let nature do the rest. I might spend more time with them if I had it to spare, but by improving the little spare moments, I have done as well as I could, and here is the result. Almost every young man in the country may do the same if he will but improve his leisure moments instead of idling them away as many do. He may raise one, and as many more as he can, and thus confer great blessings upon those to come after him. Who can tell the blessings of even one single apple tree thus raised? And would it not be well to encourage every young man to do something of the kind, and thus save himself from many temptations, and perhaps much misery? Let him set out one little tree, and see what pleasure will be afforded in its cultivation. I for one take much in the cultivation of mine, and wish others may do the same, and as much better as they can.

APPLES, PEACHES, PLUMS AND QUINCES.

Among fruit, the apple is justly regarded by our New England farmers as most valuable in the market, and profitable in culture; and the display in that department to-day, we think, has never been excelled, in any previous exhibition. It would be unjust however, to the contributors of former years, to ascribe this excellence entirely or chiefly to the manifestation of unusual interest by the members of the Society, or to any sudden development of agricultural skill; but such have been the favorable influences of the season, that the beautiful and perfect specimens seen upon the tables to-day were selected, doubtless, with less care and pains-taking, than the inferior ones of some former years.

Your Committee were pleased to notice many plates of new and choice varieties, which in the earlier shows were confined to a few, giving evidence of the value of these exhibitions in directing the attention of cultivators to the better kinds of fruit.

So uniformly fair and perfect were the apples presented, that your Committee found great difficulty in deciding upon the comparative merit of the contributions. We have been governed in our decisions quite as much by the value of the variety as the perfection of the specimens.

In peaches, plums and quinces, the contributions were few, and with some exceptions the specimens would not be considered as superior quality.

We have awarded the premiums offered as follows, to-wit:

APPLES.

For the best and largest exhibitions of named varieties,

1st, to Jonas A. Marshall, of Fitchburg,	$4,00
2d, to Benj. Snow, Jr., of Fitchburg,	3,00

For twelve varieties of five specimens each,

1st, to C. C. Field, of Leominster,	3,00
2d, to Ezra Kendall, of Sterling,	2,00
3d, to W. G. Wyman, of Fitchburg,	1,00

For six varieties of five specimens each,

1st, to J. W. Hollis, of Fitchburg,	2,00
2d, to J. P. Putnam, of Fitchburg,	1,50
3d, to Jabez Fisher, of Fitchburg,	1,00

For three varieties of ten specimens each,

1st, to Ira Holton, of Fitchburg,	1,50
2d, to Addison Hubbard, of Fitchburg,	1,00
3d, to Walter Heywood, of Fitchburg,	,50

For the best exhibitions of any one variety,

1st, to Addison Hubbard, of Fitchburg,	1,50
2d, to C. C. Field, of Leominster,	1,00

PEACHES.

For the best collections,

B. Snow, Jr., of Fitchburg,	3,00

For the best dishes or baskets,

1st, to Addison Hubbard, of Fitchburg,	2,00
2d, to Jabez Fisher, of Fitchburg,	1,00
3d, to John Upton, of Fitchburg,	,50

PLUMS.

For the best collections,

Benj. Snow, Jr., of Fitchburg,	2,00

For the best plates,

1st, to Cyrus Thurston, of Fitchburg, $1,00

2d, to John M. Twitchell, of Fitchburg, ,50

QUINCES.

For the best dishes or baskets,

1st, to Ezra Kendall, of Sterling, 1,00

2d, to Jacob Haskell, of Fitchburg, ,50

From the sum placed at our disposal for gratuities, we advise the following for contributions of apples, viz:

To Cyrus Thurston, Jacob Haskell, Alvah Crocker, E. D. Works, Benj. Safford, Samuel Burnap, Nathan Whitcomb, David B. Dole and David Richardson, of Fitchburg, and Porter Piper, of Leominster $1,00 each.

To Samuel Farwell, 2d, of Fitchburg, $1,50.

To Waldo Wallace and E. S. Burnap, of Fitchburg, and Gardner Merriam, of Leominster, 50 cents each.

J. C. ALLEN, *Chairman.*

PEARS AND GRAPES.

PEARS.

The show of pears the present year was very gratifying. The number of contributions was unusually large, and considering the fact that there were many dishes of pears, each a model collection, it became a matter of some difficulty to award the premiums.

Little need be said, except in commendation, of the number, variety or appearance, of specimens presented. The fruit was uniformly of good size and fair.

The quality of pears this year (and the same remark will apply to grapes) was not quite equal to their appearance. Two causes probably operated to produce

this result. A reference to a meteorological table will show the fact that there was an unusual amount of wet and cloudy weather during the months of September and October, which prevented the leaves from receiving that amount of the sun's rays, which is necessary to perfect the juices sufficiently to produce rich fruit, and especially the formation of sugar.

The other leading cause was, too many specimens were allowed to remain on the tree. For as the tree could manufacture only a given amount of nourishment, which must be equally distributed to too many specimens, all necessarily became of inferior quality. It should be kept in mind that a single perfect specimen, with a proper proportion of acids, sugar, juice and aroma, is more valuable than a dozen inferior in appearance and tasteless.

The Committee make the following awards:

For the best and largest exhibitions,

1st, to Jabez Fisher, of Fitchburg,	$4,00
2d, to Benj. Snow, Jr., of Fitchburg,	3,00

For the best twelve varieties,

1st, to Alvah Crocker, of Fitchburg,	3,00
2d, C. C. Field, of Leominster,	2,00
3d, to Wm. G. Wyman, of Fitchburg,	1,00

For the best six varieties,

1st, to Walter Heywood, of Fitchburg,	2,00
2d, to J. M. Twitchell, of Fitchburg,	1,50
3d, to T. R. Boutelle, of Fitchburg,	1,00

For the best three varieties,

1st, to G. F. Nutting, of Fitchburg,	1,50
2d, to Jabez Fisher, of Fitchburg,	1,00
3d, Wm. H. Harris, of Fitchburg,	,50

For the best exhibitions of one variety,

1st, to Alvah Crocker, of Fitchburg,	$1,50
2d, C. P. Sawyer, of Fitchburg,	1,00

GRATUITIES.

P. Doolan, of Fitchburg, for dish of pears,	,50
N. S. Boutelle, of Fitchburg, for dish of pears,	,75
Daniel Messenger, of Fitchburg, for dish of pears,	,75
Cyrus Thurston, of Fitchburg, for dish of pears,	,50
Addison Hubbard, of Fitchburg, for dish of pears,	,50
J. A. Marshall, of Fitchburg, for several varieties pears	,75
Ivers Phillips, of Fitchburg, for two dishes pears,	,75
Abel Simonds, of Fitchburg, for two dishes pears,	,75

GRAPES.

History very plainly points to Persia, as the original home of the grape, and as this is the first fruit mentioned in Sacred History, it is fair to presume that our first parents regaled themselves with this most delicious fruit, planted in the garden of Eden by our Creator's own hand. We soon hear of Noah "that he planted a vineyard, and drank of the wine." It would be interesting to know something of the details of vine culture as practised in the earliest times, but history has left us in the dark upon these points.

The grape is mentioned among the blessings of the promised land. The Israelitish spies plucked a bunch so large that two bore it on a staff. Profane historians in all ages have referred to this as the safest and most delicious of all fruits.

When we consider the fact that for four thousand years and more the grape has not only been known, but cultivated, that hundreds of varieties with a moderate amount of knowledge and skill, can be produced as easily

as the apple or pear, it will be conceded that this fruit has not received that attention which its importance demands.

One great obstacle to the successful cultivation of some of the best varieties of this fruit, is the destruction of the vine, by the severity of our winters.

This difficulty may be overcome in a great measure, in two ways. First, by attending to the early ripening of the wood; and secondly, by proper protection during winter.

All stimulating manures have a tendency to produce a too luxurious growth, which is prolonged till late in the fall; and winter comes, with its frosts, and finds the vine wholly unprepared for the change, and the consequence is an untimely death. A moderate growth is all that is really desirable. The wood is much more likely to be short jointed, and thoroughly ripened, and consequently hardy.

Leaf mould, and a judicious application of bone dust, is all that ordinary soils need, as these ingredients afford all the elements necessary for the growth of both vine and fruit. Secondly, the vines may be, and in fact ought always in our latitude to be, laid down and covered with soil, or carefully wrapped in straw. By this means a gentleman in an adjoining town has been able to raise the Isabella in a good degree of perfection nearly every year. Healthy vines thus secured, start from one to two weeks earlier than those left unprotected.

Grapes must have air, light and a certain degree of heat. These essential elements the God of Nature generally provides bountifully. All that man has to do, is to prepare the soil, and care for the vine, which soon becomes a fascinating employment. Any man, with a

rod of ground on the sunny side of his house, may if he likes, in a few years raise from one to five bushels of the most nourishing and delicious fruit this world affords.

The man who properly plants a grape vine, provides not only himself but his children with a delicious fruit, as vines often live from one hundred and fifty to two hundred years, bearing from twenty to thirty bushels annually. This year, the show of grapes was very good, but unfortunately, hardly a perfectly ripe specimen could be found. There were several large collections of the Isabella, many of which were hardly colored. The Concord and Diana were but little better. A beautiful plate of Rebeccas told the same story. These comprise all the varieties worthy of consideration. A goodly supply of unripe native grapes were on the tables, which like the apples of Sodom were beautiful to look upon, but perfectly terrible to the taste. Of foreign grapes there was but a single dish, and these were truly beautiful, yet not fully ripe.

After a careful examination, the Committee report the following awards:

For the best display of foreign grapes,

1st, to Walter Heywood, of Fitchburg, 3,00

For the best exhibitions of native grapes,

1st, George E. Towne, of Fitchburg, 3,00

2d, Jabez Fisher, of Fitchburg, 2,00

3d, Wm. G. Wyman, of Fitchburg, 1,00

GRATUITIES.

B. W. Seamans, of Ashby, for two dishes grapes. ,50

E. D. Works, of Fitchburg, for three dishes grapes, .,50

Alvah Crocker, of Fitchburg, for collection grapes, ,50

GEORGE JEWETT, *Chairman.*

ASSORTED FRUITS AND FLOWERS.

Your Committee claim great credit for the brilliant suggestion that the subject of their report naturally divides itself into two heads. First, Assorted Fruits. Second, Flowers; and to the consideration of these respective divisions the Chairman devotes himself.

Fortunately for your Committee we found but one basket of fruit upon which to sit—in judgment; and here, in passing, pardon us the suggestion that surely the ingenuity of man never devised a more complete apology for fruit stealing than a dish of assorted fruit. Anybody is equal to the steady contemplation of a basket of apples or pears *per se*, however ruddy or luscious. Nay, even a *heaped dish* of Early Crawfords or Black Hamburgs fails to dim the distinction between *meum* and *teum*, unless the moral perceptions of the gazer are already terribly blunted. Monotonous sameness, unrelieved by contrast, soon palls the appetite, and the taste becomes cloyed to satiety; but place upon a brown wicker basket, first the solid and substantial portion of the pomological community, apples of every shape and color from the fair skinned Porter to the blushing Nonsuch, completing the pyramid with a bewildering confusion of pears, peaches and plums, with perhaps a golden brown melon peering through each of two or three apertures left for the purpose, and refreshing cascades of luscious grapes gushing out of unsuspected crevices all over the surface, and if it be artistically arranged with reference to contrasts of color, shape and variety, you have a monumental incentive to fruit stealing, which, spite of "statutes in such cases made and provided," will induce

every evil minded beholder to resolve on the first dark night thereafter "to shoulder his *ladder* and show how fruit is won." The one basket was soon disposed of. We awarded it the first premium, and a proposition to award it also the second would have passed unanimously, had not the rules of the Society precluded the idea.

Second—Flowers, to speak in praise of which, is as useless as to "gild refined gold or paint the lily." They are made to be seen and admired—not idly talked about. In the arrangement of flowers for exhibition, it is too often forgotten that nature—the best guide—produces her grandest effects by ignoring everything like geometrical precision and giving full play to systematic irregularity. Striking effects may be produced by placing similar colors in rings, stripes, stars or squares, the whole so arranged as to form an exact cone, pyramid or "flap-jack" in shape, but such can hardly be called bouquets. We hesitated long in deciding between the rival claims of two very fine—and one truly regal—specimens of every variety of flowers, most artistically arranged. On one hand, quantity, number, sprightly arrangement and gorgeous effect; on the other, exquisite taste, shown in the general contour as well as the delicious contrasts and infinite beauty of detail. Long time we wavered, feeling (to quote the idea of a noted politician) that whichever way we decided, we should wish it had been otherwise, till at length we settled it, by each member of the Committee looking in one direction and pointing another, while the half distracted Chairman hastily noted down the result, and as he firmly believes got it wrong after all. In view of the possibility of this, he takes this opportunity to beg pardon

of everybody connected with the affair, and to declare upon his honor that each deserved the first premium.

Our awards are as follows:

For the best basket of assorted fruit,

1st, to Benj. Snow, Jr., of Fitchburg,	$2,00

For the best display of plants in pots,

1st, to Walter Heywood, of Fitchburg,	2,00
2d, to Mrs. Mary F. Russell, of Fitchburg,	1,00

For the best display of cut flowers,

1st, to Mrs. J. F. Munroe, of Fitchburg,	1,00
2d, to Mrs. G. D. Harris of Fitchburg,	,50

For fine displays of flowers, we further award the following Gratuities:

Mary J. Heywood, of Fitchburg,	$0,50
Mrs. L. B. Davis, of Fitchburg,	,50
Mrs. C. H. Whittemore, of Fitchburg,	,50
Miss Mary A. Howe, of Sterling,	,50
Mrs. Frank Sheldon, of Fitchburg,	,25

A very beautiful dahlia was exhibited by Moses A. Brown, of Fitchburg, but being entered too late, was not entitled to compete for a premium.

For the Committee,

GEO. E. TOWNE, *Chairman.*

GARDENS.

If the number of entries, or the merits of the gardens entered by the several competitors, is a fair criterian by which we may judge of the importance attached to a well arranged and skillfully cultivated kitchen garden, your Committee think they have unmistakable evidence

of a growing interest on this subject. In no former year, (we believe) in the history of this Society, has there been more than two entries for this class of premiums. This year, there were entries by the following named persons—Alvah Crocker, Wm. G. Wyman, J. M. Sawtell, Justin Stearns, Daniel Messenger and Walter Heywood, together with one flower garden, by Mrs. Monroe, (for which no premium was offered). It is expected that the several competitors will furnish their own statements in relation to size, soil, management and products of their several gardens, as they can do it much more readily and easily than it can be done by us.

It may be proper, however, for your Committee to notice a few distinguishing characteristics in some of these gardens which governed us, (in some measure,) in making our awards. Mr. Crocker's garden, which contains a larger area than either of its competitors, and being situated in one of the most favorable localities in the vicinity, (by the help of hot-beds skillfully managed,) has been made to produce almost every desirable variety of early and late vegetables, and the lesser fruits in abundance. A portion of his inclosure is devoted to the cultivation of Standard and Dwarf pears, which appear to be in a very thrifty and healthy condition, most of which were loaded with fruit the present season, which we know by actual demonstration, was not only "pleasant to look upon," but very grateful to the palate. Mr. Crocker has also in process of cultivation, a large number of Seedling grapes, some of which have fruited, and promise well. But as they were not thoroughly ripe when we made our last examination, we are unable to vouch for their excellence.

Mr. Wyman's garden, the next in point of size, we found well arranged and skillfully cultivated. "No noxious weeds" were to be seen above ground on either of our examinations. This, in that respect, was the model garden, and (not to innumerate.) produced bountifully, a large variety of the most desirable vegetables and lesser fruit in their season.

The garden entered by Walter Heywood bore unmistakeable marks of skillful cultivation. His green house presented temptations almost beyond what we were able to bear. His grapes, we think, surpassed anything of the kind we have ever witnessed. A considerable portion of the land devoted to out-door culture, is occupied in the cultivation of fruit trees—principally Dwarf pears—most of which were loaded with fine looking fruit. As a whole, although the space devoted to vegetable culture was somewhat limited, this was a very good specimen of a kitchen garden. Mr. Heywood would have been entitled to a premium, had his entry been made in season.

Mr. Sawtell's garden, though not very extensive, by the aid of hot-beds and good culture, was made to produce a goodly supply of the most desirable vegetables.

The gardens of Messrs. Stearns and Messenger appeared in good condition, and without doubt remunerated them well for their labor.

The flower garden entered by Mrs. Munroe, was very tastefully laid out, and cultivated in a workmanlike manner. It contained a large variety of very beautiful flowers, (which we will not attempt to enumerate,) that served not only to delight the eye, but to fill the surrounding atmosphere with their sweet perfume.

Is it not a matter worthy of consideration, whether the flower garden, which adds so much to the attractions of that "dearest spot on earth, Sweet Home," shall be included in the list of premiums in future.

Our awards are as follows:

1st, to Alvah Crocker, of Fitchburg,	$6,00
2d, to W. G. Wyman, of Fitchburg,	4,00
3d, to J. M. Sawtell, of Fitchburg,	2,00
GRATUITIES.	
Justin Stearns, of Fitchburg,	2,00
Mrs. Monroe, of Fitchburg, for flower garden,	1,00

CYRUS THURSTON, *Chairman.*

ROOT CROPS.

The Committee visited the different fields offered for premiums on September 10th, and after a careful examination of the "Statements returned," award the following premiums:

RUTA-BAGAS.	
1st, to Alonzo P. Goodridge, of Fitchburg,	$3,00
2d, to W. G. Wyman, of Fitchburg,	2,00
Levi Kendall, they recommend a gratuity of,	2,00
SUGAR BEETS.	
1st, to Alonzo Goodridge, of Fitchburg,	2,00
MANGOLD WURTSEL.	
1st, Solon Carter, of Leominster,	$2,00
2d, Alonzo P. Goodridge, of Fitchburg,	1,00
CARROTS.	
Alonzo P. Goodridge, a gratuity of,	3,00

Potatoes, no returns made.

J. M. SAWYER, *Chairman.*

ALONZO P. GOODRIDGE'S STATEMENT.*

SWEEDISH TURNIPS.

The eighth-acre on which my ruta-bagas grew is a sandy loam. The crop of 1858 was corn, with three loads stable mauure; that of 1859 was corn, with three loads stable manure. It was plowed twice in May, about ten inches deep; manured with three loads spread and plowed in; furrowed and sowed the first week in June, in drills two and a half feet apart; hoed twice, and harvested November 7th.

Cost of plowing, &c.	$0,75
Manure,	4,00
Seed and sowing,	,50
Cultivation,	1,50
Harvesting,	2,00
Total,	$8,75

Produce, when harvested, 5485 lbs. roots.

W. G. WYMAN'S STATEMENT.

SWEEDISH TURNIPS.

The eighth-acre which produced my Sweedish turnips is a gravelly loam upon a loose sub-soil. The crop of 1858 was corn and beans, with five-eighths cord stable manure and one bushel ashes; that of 1859 was corn and cabbages, with one-half cord of compost of stable

*The statements concerning cultivated crops are made by the Secretary from the returned forms sent to the several competitors. In all cases where manure is estimated in loads, the loads are understood to contain thirty bushels each. The quantity of produce in all cases is ascertained by actual weight of the whole merchantable crop, the weight being certified to under oath.—*Sec.*

manure and muck, and a few pounds of bone and superphosphate of lime. For the present crop one-half cord of compost of stable and hog manure and muck was spread and plowed in; plowing once, April 30, about nine inches deep. It was crossed with a horse hoe June 9, smoothed with a garden rake, and sowed with a seed sower in drills about twenty inches apart, with River's stuble Sweedish turnip seed raised by myself; was cultivated once with a hand hoe and garden rake, and harvested November 5.

About 75 lbs. superphosphate of lime, Coe's manufacture, was spread upon the drills after the seed came up.

Cost of plowing and other preparation,	$1,00
Manure and superphosphate,	4,50
Seed and sowing,	,25
Cultivatiou,	,50
Total,	$6,25

The tops paid for harvesting.

Produce 6200 lbs., equal to 103½ bushels, or 826 2-3 bushels per acre.

The machine with which the seed was sowed did not distribute it evenly, and many places where no seed came up were filled by transplanting from others where it was too thick. That transplanted did not do one-third as well as the other.

ALONZO P. GOODRIDGE'S STATEMENT.

SUGAR BEETS.

The eighth-acre on which my beets grew is a sandy loam. The crop of 1858 was corn, that of 1859, sugar beets, with three loads stable manure each year. For

the present crop, three loads manure was spread and plowed in. It was plowed twice in May, ten inches deep; furrowed and sowed in drills two feet apart the first week in June; hoed twice, and harvested Nov. 8.

Cost of plowing, &c.,	$0,75
Manure,	4,00
Seed and sowing,	,50
Cultivation,	1,50
Harvesting,	2,00
Total,	$8,75

Produce, 4815 lbs. of beets.

SOLON CARTER'S STATEMENT.

MANGOLD WURTZEL.

The eighth-acre which I cultivated with mangold wurtzel is a clayey loam. The crop of 1858 was carrots, that of 1859, mangold wurtzel, manured at the rate of twenty loads per acre each year. It was plowed the last of April, and again just before sowing, two loads of manure having been spread before the first plowing, it was then furrowed one way three and one-half feet apart, three loads of manure applied to the furrow, and two furrows turned upon it; the top of the ridge raked; a furrow made by drawing a hoe through it, and one-half pound seed sown by hand, May 25th. As soon as the plants could be seen, I went through with a light harrow, and when large enough to hoe I used the horse-hoe, following with the hand-hoe; this was repeated once, but the horse-hoe was run through five times.

October 20, the roots were pulled and thrown into rows far enough apart for a wagon to go between them,

the tops cut off, the roots laid in rows and then thrown into the wagon as one would throw stove wood.

Cost of plowing and other preparation,	$1,00
Manure,	10,00
Seed and sowing,	1,40
Cultivation,	4,00
Harvesting,	3,00
Total,	$19,40

Produce 6720 lbs., equal to 26 tons and 1760 lbs. per acre, or equal to 896 bushels per acre.

Tops not weighed, but think they were worth one-half the cost of harvesting.

VEGETABLES.

The Committee on vegetables, award the following premiums and gratuities:

KITCHEN VEGETABLES.

1st, to J. M. Sawtell, of Fitchburg, $10,00

POTATOES.

1st, to Loriston Stockwell, of Fitchburg, 2,00
2d, to Edwin S. Burnap, of Fitchburg, 1,00
3d, to George Miles, of Westminster, ,50

MARROW SQUASHES.

1st, to Thomas R. Boutelle, of Fitchburg, 1,00
2d, to Walter Heywood, of Fitchburg, ,50

HUBBARD SQUASHES.

1st, to Wm. G. Wyman, of Fitchburg, 1,00
2d, to Jabez Fisher, of Fitchburg, ,50

PUMPKINS.

1st, to Jabez Fisher, of Fitchburg, ,75

CABBAGES.

1st, to Alvah Crocker, of Fitchburg, $0,75
2d, to Wm. G. Wyman, of Fitchburg, ,50

CELERY.

1st, to Alvah Crocker, of Fitchburg, ,75
2d, to Walter Heywood, of Fitchburg, ,50

ONIONS.

1st, to Lawrin Pratt, of Fitchburg, ,75

TURNIP BEETS.

1st, to Benjamin Safford, of Fitchburg, ,75
2d, to Jabez Fisher, of Fitchburg, ,50

ENGLISH TURNIPS.

1st, to Jabez Fisher, of Fitchburg, ,50
2d, to Benjamin Safford, of Fitchburg, ,25

TOMATOES.

1st, to Adonijah Barnes, of Westminster, ,50
2d, to Walter Heywood, of Fitchburg, ,25

FIELD BEANS.

1st, to N. S. Boutelle, of Fitchburg, ,50

SEED CORN—IN TRACES.

1st, to Moses Gage, of Fitchburg, 1,00
2d, to Miss Lottie A. Stratton, of Leominster, ,75

GRATUITIES.

Sam'l Farwell, 2d, of Fitchburg, three fine cabbages, ,25
Loriston Stockwell, of Fitchburg, citrons, ,25
Abel Marshall, of Fitchburg, six fine water melons, 1,00
Alfred Marshall, six water melons, ,50
Jabez Fisher, of Fitchburg, tomatoes, ,25
C. A. Emory, of Fitchburg, tomatoes, ,25

John M. Hollis, of Fitchburg, sugar beets, $0,25
Francis E. Williams, of Fitchburg, potatoes, ,25
Jacob Haskell, of Fitchburg, turnip beets, ,25
Walter Heywood, of Fitchburg, Hubbard squashes, ,40

No crookneck squashes, cauliflowers or lima beans were exhibited.

For the Committee,

T. K. WARE, *Chairman.*

GRAIN.

The Committee examined the greater portion of the crops while growing.

There were twelve entries duly made of corn; but four competitors made any statement in regard to their crop. The expense of weighing the crop, as required by law, and the small amount of premium offered, are the reasons assigned by those making entries for not making their statements.

We award the following premiums:

CORN.

1st, to Joseph Goodrich, of Lunenburg, $6,00
2d, to Albert Stratton, of Leominster, 4,00
3d, to Solon Carter, of Leominster, 3,00
Wm. G. Wyman, of Fitchburg, gratuity, 2,00

WHEAT.

Eight entries were made of wheat; three competitors only complied with the regulations and made their statements. We award as follows:

1st, to Solon Carter, of Leominster,	$4,00
2d, to Cyrus Kilburn, of Lunenburg,	3,00
3d, to Edward Smith, of Fitchburg,	2,00.

BARLEY.

Three entries were made of barley, and we award the following premiums:

1st, to Cyrus Kilburn, of Lunenburg,	3,00
2d, to Solon Carter, of Leominster,	2,00

WHITE BEANS.

Four entries were made of white beans; we award:

1st, to A. P. Goodrich, of Fitchburg,	2,00
2d, to Wm. G. Wyman, of Fitchburg,	1,00

GRASS SEED.

Three samples of herds grass seed were exhibited; we award:

1st, to George Kendall, of Ashby,	$2,00
2d, to Benj. Safford, of Fitchburg,	1,00

There was one entry made of cabbages, but no statement has been received in regard to the above.

There were no competitors for the premiums offered "for the variety of corn best adapted to our soil and climate."

As the grain crop is of so much importance to the New England States, and the consumption so large, every fact and improvement in its culture should be brought to light. We would therefore recommend to the Trustees to offer higher premiums on the grain crop, to induce more competition and fuller reports.

LEONARD BURRAGE, *Chairman.*

JOSEPH GOODRICH'S STATEMENT.

CORN.

The acre on which I raised my premium corn, is a clayey loam. It has been pastured for the last forty years. No manure was applied in 1858 and 1859. It was plowed only once, about the middle of April, five to six inches deep; harrowed thoroughly once; furrowed one way about three and one-half feet apart; manured with about twenty-seven loads compost, of about equal proportions of muck and droppings from the cattle, composted in the barn cellar, about sixteen loads spread and plowed under, and eleven loads put in the hill; planted on the 5th and 7th of May by hand with six quarts Carter corn in hills, averaging about two and one-half feet apart; hoed twice, plowing in connexion with the first hoeing, and cultivated the second time; had the top stalks cut about the 14th of September, and was cut for husking about the 29th of September. There are three apple trees on the acre, and the corn under them was small. The cost of harvesting was increased in consequence of the storm and wind prostrating the corn before toping.

Cost of plowing, &c., about,	$9,00
Manure,	40,00
Seed and planting,	4,00
Cultivation,	7,00
Harvesting,	8,00
Total,	$68,00

Produce, 6470 lbs. of ears of corn, weighed Oct. 6th; and about 3¼ tons stover.

ALBERT STRATTON'S STATEMENT.

CORN.

The acre where my corn grew, is a light gravelly loam, on a steep side hill; has been used for pasture land for many years; no manure was applied in 1858 and 1859. It was plowed once on the 1st of May, seven to eight inches deep, and being hard to apply barn manure to, I used guano, 400 lbs. broad cast, harrowed in before planting; harrowed twice, and marked for planting one way; applied 150 lbs. Coe's superphosphate of lime in the hill, and 200 lbs. plaster; planted May 24th and 25th in hills, by hand hoe, four quarts Carter corn; plowed and hoed twice; harvested October 29th.

Cost of plowing, &c.,	$7,00
Manure,	20,10
Seed and planting,	1,50
Cultivation,	4,50
Harvesting,	7,00
Total,	$40,10

Produce, 5072 lbs. of ears of corn, weighed Oct. 30; and I should judge two tons of stover.

The result of the application of guano, and superphosphate and plaster, proved beyond my expectation.

SOLON CARTER'S STATEMENT.

CORN.

The acre on which my corn grew, was in grass, without manure, in 1858 and 1859; is a springy, stiff, clayey loam; was plowed in September 1859, and twice in May, from seven to eight inches; harrowed; furrowed; manured with twelve loads spread, and fifteen loads applied in the hill, and 300 lbs. superphosphate of lime put upon the manure in the hill before it was covered;

planted May 16, with Randall & Jones' corn planter, with six quarts of Carter corn; harrowed both ways twice in a row; hoed by hand; thined to four stalks to a hill; worked with a horse-hoe once in a row one way and twice the other, followed with a hand-hoe, then after haying worked again with the horse-hoe once in a row each way, and harvested October 30.

Cost of plowing, &c.,	$12,50
Manures,	45,00
Seed and plantion,	,87
Cultivator,	10,00
Harvesting,	8,00
Total,	$76,37

Produce, 4958 lbs. ears of corn, weighed November 2d, and 3d; and three tons stover, estimated weight.

I think the crop on the 1st of August was equally promising with that of 1858, but from that time the weather was so cold that many of the second and third ears on the stalks did not grow as long, nor fill so full as they would have done in an ordinary season.

I present a sample of the Carter corn, and claim that it is the best *variety* known for cultivation in this latitude.

SOLON CARTER'S STATEMENT.

WHEAT.

The acre on which my wheat grew, is a clayey loam. The crop of 1858 was grass, without manure; that of 1859 corn, with twenty-five loads spread, and plowed in. The corn hills were split two furrows to a row, November 16, 1859; in April, these rows were split as before, and plowed once eight to ten inches deep. It was sowed April 25th, with two bushels coffee wheat, covered

with a harrow, bushed and rolled; reaped by hand from the 10th to the 15th of August.

No manure was used for the present crop.

Cost of plowing, &c.,	$5,00
Seed and sowing,	3,75
Harvesting,	9,00
Total,	$17,75

Produce, 2167¾ lbs. wheat, weighed September 11; and 1½ tons straw.

CYRUS KILBURN'S STATEMENT.

WHEAT.

The lot on which my wheat grew, contained 199 rods; is a clayey loam; the crop of 1858 and 1859 was corn, with twenty-five loads barn-yarn manure each year; it was plowed once five to six inches deep; harrowed; three or four loads of coarse manure spread on a strip of wet springy land; sowed the last week in Sept. 1859 with two bushels per acre of blue stem winter wheat, reaped the last of July, bound, stooked twenty-five sheaves to a stook, covered with large hay caps, and when dry, carted to the barn and threshed from the cart with a threshing machine.

The wheat on the wet strip, fifteen to eighteen square rods, proved almost a failure, being thrown out by the frost.

Cost of plowing, &c.,	$5,00
Manure,	4,00
Seed and sowing,	6,00
Harvesting,	11,00
Total,	$26,00

Produce, 2476 lbs. wheat, weighed August 3d; and two tons straw.

CYRUS KILBURN'S STATEMENT.

BARLEY.

The field on which my barley grew, contains 239 rods; it is a clayey loam; was planted with corn in 1858, with about twenty loads barn-yard manure; and also with corn in 1859 with about twenty-five loads barn-yard manure, was plowed once five or six inches deep; harrowed; sowed about the middle of April with a mixture of two and six rowed barley from St. Johns, C. E., at the rate of three bushels per acre; and was mowed about the last of July, raked, cocked and covered with hay caps; when dry, carted to the barn and threshed, with a threshing machine, from the cart. No manure was used for the present crop.

Cost of plowing, &c.,	$6,00
Seed and sowing,	6,00
Harvesting,	8,00
Total,	$20,00

Produce, 2685 lbs. barley, weighed August 2d; and about two tons of straw.

SOLON CARTER'S STATEMENT.

BARLEY.

The acre which produced my barley was in grass in 1858, without manure; in corn in 1859, with twenty-five loads manure spread and plowed in; the soil is a clayey loam; it was plowed by splitting the hills, two furrows to a row, November 16, 1859, and in April, these were split as before and plowed once eight to ten inches deep; sowed April 25th, with two and one-half bushels two rowed barley; harrowed, bushed, rolled and mowed

by hand, July 27. No manure was used for the present crop.

Cost of plowing, &c.,	$5,00
Seed and sowing,	2,75
Harvesting,	7,00
Total,	$14,75

Produce, 1700 lbs. barley, weighed October 4; and 1¾ tons of straw.

The crop was, during its growth, a very promising one, but just as it headed there came a rain, accompanied with wind, which beat it down so that it never recovered, consequently much of it did not mature. I think the crop was made one-third less by this accident, if so it may be called.

ALONZO P. GOODRIDGE'S STATEMENT.

WHITE BEANS.

The eighth acre on which my beans grew, is a sandy loam. The crop of 1858 was turnips, with two loads compost; that of 1859, corn, with two loads stable manure. It was plowed once in May and once in June, six inches deep; furrowed; manured with one load, spread in the drills; planted June 14, in drills two feet apart with three pints pea beans; hoed three times, and harvested September 1st.

Cost of plowing, &c.,	$0,50
Manure,	1,00
Seed and sowing,	,30
Cultivation,	,75
Harvesting,	,50
Total,	$3,05

Produce, 165 lbs. beans.

W. G. WYMAN'S STATEMENT.

WHITE BEANS.

The eighth acre on which my beans grew, is a yellow loam, on a clayey sub-soil. For many years previous to the present it has been in grass, but the soil was so completely exhausted that the grass was hardly worth mowing. It was plowed in the fall, and again in June, about five inches deep; harrowed; furrowed; manured with about two-thirds load of compost, of nearly equal proportions of muck and green stable manure applied to the hill, at the rate of one shovelful to four hills; planted June 14th; hoed once by hand, and harvested Oct. 1st, by being pulled and stacked in the field.

Cost of plowing, &c.,	$0,50
Manure,	0,67
Seed and planting,	,25
Cultivation,	,50
Harvesting,	,75
Total,	$2,67

Produce, 128 lbs. beans, weighed November 8.

EXPERIMENTS.

There were three entries only of experiments.

One on feeding neat stock, by John Brooks, Jr., of Princeton.

One on keeping poultry, by Benjamin Safford, of Fitchburg.

One with manures on wheat, by Wm. G. Wyman, of Fitchburg.

All the above were entered, and statements furnished, in conformity with the rules of the Society.

It is hardly necessary for the Committee to do more than make their awards, and direct your attention to the several statements of the experiment which are all well and clearly stated. With regard to the experiment of Mr. Brooks, the Committee would say, they believe this to be the *first experiment*, having the same objects in view, on record, and that it proves all that any one experiment on this subject can; they would also call attention to the experiment of Mr. Brooks, in the report of last year, covering a part of the same ground. In addition to the small premium awarded Mr. Brooks for this experiment, we think the public are under great obligations to him, and would be to any other farmer in the State, who will go over the same ground with another set of cattle of the same breeds.

Mr. Wyman, we hope, will give us the condition of his field the coming year.

We think if Mr. Safford can continue his experiment through the year on a large scale, with equally favorable footings, our poultry would soon be on the increase.

We have made the following awards:

To John Brooks, Jr., of Princeton, the first premium of $4,00, feeding neat stock.

To Benj. Safford, of Fitchburg, first premium of $2,00, keeping poultry.

To Wm. G. Wyman, of Fitchburg, for his experiment with manures on wheat, $3,00.

For the Committee,

J. A. MARSHALL, *Chairman.*

JOHN BROOKS, JR'S STATEMENT.

FEEDING NEAT STOCK.

By the advice of last years Committee, (and to satisfy myself more fully) I have fed older animals this year, and submit to you the following statement in regard to neat stock, showing (conclusively to me) the great difference in feeding *Devon* and *Ayrshire* cattle. Those that I fed this year were as follows, viz:

1 Devon bull, two years old, past.

1 Devon cow, five years old, past.

1 Devon cow, seven years old, past.

They eat $1\frac{53}{100}$ lbs. of hay to 100 lbs. live weight daily. Their average weight was 3540.

1 Ayrshire bull, two years old, past.

1 Ayrshire cow, six years old, past.

1 Ayrshire cow, seven years old, past.

They eat $1\frac{96}{100}$ lbs. of hay to 100 lbs. live weight daily. Their average weight was 3257.

They consumed almost 1-3 more than the Devons.

All the above cattle had two quarts cob meal apiece daily, besides the hay. You will see that the Devons weighed the most, and had they had meal in proportion to their live weight, the difference in the hay that they consumed would have been larger.

A few words in regard to the milking qualities of the two breeds.

I obtained from 1627 lbs. Devons, 55 lbs. of milk, and from that milk $3\frac{8}{10}$ inches of cream in 20; and I obtained from 1689 lbs. of Ayrshires, 55 lbs. of milk, and from that milk, $2\frac{4}{10}$ inches of cream in 20.

I am satisfied (and this experiment confirms it fully in my mind) that the Devons are the most profitable stock for the *dairy* or for *beef* that can be kept.

BENJAMIN SAFFORD'S STATEMENT.

KEEPING POULTRY.

I offer for the consideration of the Committee the following statement of an experiment in "keeping poultry," which I entered for a premium.

I kept two old hens, thirteen pullets and one rooster, sixteen fowls in all, separate from all other poultry, from January 1 to April 1; fed them dry corn and barley as much as they would eat, kept by them all the time, and an occasional mess of hot dough of corn meal, with a liberal springling of cayenne pepper; kept old house plastering pounded, by them all the time. They chose corn in preference to barley; would eat eight quarts of corn to two quarts of barley; consumed an average of ten quarts per week of grain, including the meal.

They laid 50 doz. eggs. Having other hens in another barn, I sold all the eggs, except $3\frac{3}{4}$ doz. saved to set, for $10,20, an average of 22 cents per doz.

The fowls were a cross of the Chitagong and Dorking breeds, and were worth at least as much at the close of the experiment as at the commencement. The droppings abundantly paid for all labor in the care of the hens, and marketing the eggs.

Income, 50 doz. eggs, at 22 cents per doz.,	$11,00
Expense, 13 times 10 quarts, equal $4\frac{1}{16}$ bushels grain, at $1,00 per bushel, - -	4,06
Profit, - - - -	$6,94

W. G. WYMAN'S STATEMENT.

MANURES FOR WHEAT.

The following is a correct statement of the experiment with manures for wheat, which I entered for a premium.

I sowed wheat on a field which was planted with corn in 1858 and 1859, and manured with about four cords of compost, and thirty bushels ashes per acre each year; the soil being a light loam upon a heavy sub-soil. After plowing in April, about seven inches deep, and crossing with a horse-hoe, I divived the field into four lots, and applied to lot No. 1, stable manure from my barn cellar, at the rate of three cords per acre, worth $6,00 per cord, $18,00 per acre; to No. 2, Coe's ground bone, at the rate of 500 lbs. per acre, worth 1½ cents per lb., $7,50 per acre; to No. 3, Coe's superphosphate of lime, at the rate of 250 lbs. per acre, worth 2½ cents per lb., $6,25 cents per acre; to No. 4, no manure of any kind; sowed wheat, with, unfortunately, a sprinkling of oats, at the rate of two bushels per acre, and grass seed on the 21st of April; harrowed and rolled, treating the several lots precisely alike, with the exception of fertilizing. On the 16th of August, a member of the Committee selected an average rod of each lot, which was carefully harvested, and when thoroughly dried, was weighed before being threshed, with the following result: that from No. 1, weighed 48 lbs.; No. 2, 44 lbs.; No. 3, 45 lbs.; No. 4, 40½ lbs.; it was then threshed, cleaned and kept separate until November 9th, when the grain weighed as follows, viz: No. 1, 11½ lbs.; No. 2, 10½ lbs.; No. 3, 11 lbs.; No. 4, 10 lbs.

The division of the field is so marked, that the experiment can be continued with the grass, if desirable.

The rate per acre of the yield of grain on the several lots is, No. 1, 30 2-3 bushels; No. 2, 28 bushels; No. 3, 29 1-3 bushels; No. 4, 26 2-3 bushels. At $1,25 per bushel for the grain, the value of the fertalizers for the present crop is as follows:

Stable manure,	$5,00 per acre, cost,	$18,00
Ground bone,	1,67 per acre, cost,	7,50
Superphosphate,	3,33 per acre, cost,	6,25

MECHANICS AND MANUFACTURES.

Considering the large, the multifarious productions of mechanical skill, comprising, in their varieties, almost every combination, from the thread bobbin, to the steam engine, from cotton yarn, to cotton duck; from baby socks, to broadcloths and cassimeres; from shoe pegs, clothes pins, mop handles, pails, washtubs, to the most elegant patterns of chairs and house furniture, all of which, and many others, are common to the towns embraced in what is denominated "Worcester North," it is not surprising that those familiar with its details, should express so much wonder and astonishment at the paucity of our exhibitions in this department. It is not that what is exhibited, is not creditable, nay *highly* so to our handicraftsmen, but as we have said, their *small* amount. This remark will have more force, if we consider that the towns in question, produce of different fabrics, some $8,000,000, annually, of which Fitchburg, herself, can boast of nearly one-third part.

The question, manifestly, commends itself with *much force*, to the *great mechanical* interest of Worcester North, to every lover of its advancement and success, for unless mechanics will put themselves to the trouble of exhibiting their productions, more generally, it is believed by many, that this department had better be dispensed with entirely.

We will now proceed to enumerate the articles to which we have awarded premiums, merely adverting to the fact, that your Committee recognized such articles, *only*, as within the rule, which were exhibited by the *makers themselves*. Under this rule they have awarded:

Charles Fessenden, of Fitchburg, for a covered buggy, a model for strength, symetry and durability,	$8,00
For a harness by same manufacturer,	3,00
Thomas Sheldon of Fitchburg, for one ox yoke,	1,00
C. Moulton, photography, (good as Brady's,)	3,00
Waldo Wallace, of Fitchburg, for an ox yoke of *very superior* strength and workmanship,	2,00
F. White, of Fitchburg, for "side eliptic Keene pattern buggy," exhibiting *much* taste and *great* beauty,	10,00
Warren Simonds, of Templeton, for box of calf skins, pronounced by *good* judges to compare with French,	2,00
Messrs. Hartwell & Reed, of Fitchburg, for ornamental marble work, eliciting the encomiums of every member of the Committee,	5,00
S. M. Richardson, of Fitchburg, for one pistol gun, of much ingenuity,	2,00

The Fitchburg Woolen Mill Company,* for six pieces of Kerseymere, taken promiscously from their Factory, and though it might not be said to be handsomely finished, for it was not ruined by the shearing, wearing, at least, *double* the time of the French, or German, $10,00

Henry J. Lowe, of Fitchburg, for Chronometer escapement, unrivalled in perfection of workmanship and design, 5,00

J. F. Munroe, of Fitchburg, for an egg beater, so efficient and rapid in its results, that the eyes of some of the old seniors watered, either from reminiscences of time lost for the want of it formerly, or other cause outside the province of your Committee, 1,00

W. W. Cotting, of Fitchburg, for superior specimens of boots and shoes, 3,00

H. A. Goodrich, of Fitchburg, for caps and furs, 2,00

Daniel Cross, of Fitchburg, for an elegant suit of clothes, of workmanship so *superior* and *striking*, as to create an almost irresistible desire in the Committee, to appropriate them. How far Mr. Cross should be implicated, by being the cause of such lawless tendencies, they did not stop to enquire, but gave him 4,00

John Heywood, of Ashby, for a piece of old-fashioned frocking, 3,00

This is believed to be nearly the last of a manufacture so common in the year 1776, when so many mothers

*This excellent Firm donated their premium at once to the Society.

had heroes for sons. Some fashionable young ladies were seen to pass this excellent specimen of the simplicity of their grand-mothers, without apparently knowing what the roll *might be*, with now and then a grey-haired farmer, who stood gazing with affectionate wonder, at this *relic of the past.*

S. G. Frost, for an ornamental harness, 2,00

C. H. Brown, of the Putnam Machine Company, for his low water reporter, 5,00

This article, of his own invention, is equal to any of the work emanating from that shop, of which every Fitchburg man is proud.

Dr. Thomas Palmer, of Fitchburg, for new specimens of dentistry, 3,00

As Dr. P. is always getting at public fairs, premiums for his work in the dental art, any further comment would be unnecessary.

There were other articles on exhibition demanding mention from your Committee:

Manny's mower and reaper, for one and two horses.

Whitcomb's horse hay rake.

Ketchum's improved mowing machine, *much approved* by some of our most practical men.

Also, Gibb's cylinder plow, manufactured by Messrs. Smith & Field, of Greenfield, Mass. This plow is sure to succeed, owing to its ease of holding, and saving in draught. With this mention, your Committee's positive duties are finished, but in closing, a thought or two, presents itself. We are mechanics, we care not what approbious adjective be applied to our name, by those who know not the *true dignity* of labor, by miserable politicians and dreamy secessionists. We glory in, and

are proud of our name. It means stout hearts and arms, rendered strong and brawny by the "greasy" sweat of toil, ready always to strike for justice and right. We know our work here will soon be finished; we know the great question soon to be raised over our coffins, will be—what have we done? and what is its character and quality, and its benefits to society? Is not this the truly great and startling enquiry? Will it not continue to be, with more and more *accumulative* force as civilization advances; till all other questions are *secondary* and *subordinate* to it. It is true, a man may subsist without producing. Nay, live entirely upon the industry and frugality of others, until by fraud, or by artifice, which is too often called shrewdness, he becomes a *pampered*, and so far as his influence extends, a gloated despot. Elated and bloated by his ill-gotten wealth, pirated and wrung from the sweat and toil of others, so that when death, whose *keen* and *two-edged* sickle finds this empty bundle and bubble of humanity, it breaks only upon his parasites or hired partizans, and those who will pocket his dollars. Not one single ripple will his transit to eternity produce upon life's tidal current, and oblivion, *deep, dark* will throw over his grave her impervious pall, for ever and ever, to be thought of again only when the trump of the resurrection recalls him—for *what did he do? What has he done?* While such men, nay, such mechanics as Fulton and Watt, Stephenson and Morse, Arkwright and Whitney, Hoe and Bigelow, and names of such ilk, will live and flourish in the blessings they have conferred, long, long, after their dust has become mother earth; long, long, after their resting places are *forgotten* and *unknown.*

For their names are the theme, the household words for unborn millions, for untold generations of our race. The blessings they have conferred by labor, by toil, have *planted* them in the brain, and *eternally grafted, budded* them in memory's page, "for their works do follow them." It is for such, if any, that the "Angel of Record," when writing down their many faults—their frailties, will then blot and efface them with his tears, and the mild, the gentle voice of the *Great Omnipotent Mechanic*, that voice of benevolence, of undying love, will ring and thrill in the endless arches of His Heaven, not only with, what has he done, but what is of infinitely more importance, "*Well done.*"

ALVAH CROCKER, *Chairman.*

FANCY ARTICLES.

Premiums awarded to residents of Fitchburg:

Miss Harriet Learned, skirt, toilet cushion, embroidery, bed quilt and painting,	$2,25
Mrs. W. H. Cushing, embroidered flannel,	,50
Mrs. Amos Durant, braided mats,	,50
Mrs. N. Tolman, bed quilt and carriage boots,	,75
Miss Fanny I. Tolman, cushion and lamp stand,	,25
Miss Martha F. Ellis, wax flowers,	1,50
Miss Emily S. Sawtell, lamp stand,	,25
Miss Susan S. Sawtell, bean pyramid,	,37
First Parish Sewing Circle, carriage blanket,	2,00
Mrs. Frank Sheldon, cone basket,	,25
Mrs. M. A. Wright, wrought hood,	,50
Miss Lizzie Cochran, pencil drawing,	5,00

Mrs. Hannah Litch, hose,	$0,50
Mrs. M. F. White, cone frame,	,50
Miss O. W. Wheeler, cone frame,	,50
Mrs. M. G. White, transferred work,	,25
Miss Fanny E. Wheeler, tidy,	,25
Mrs. Betsey Merriam, hose,	,50
Mrs. Mary P. Hartwell, painting,	,50
Lawrin Pratt, confectionery,	2,00
Miss Mary E. Russell, lamp stand,	,25
Miss Anna F. Bradford, paper flowers and mats,	1,00
Miss Mary S. Haskell, shawl and painting,	2,00
Miss Mary Ryner, calico bed quilt,	,50
Mrs. Calvin Tolman, woven bed quilt,	,50
Mrs. C. L. Stockwell, embroidered skirt,	,75
Miss Julia V. Hitchcock, pencil drawing,	,25
Miss A. E. White, pencil drawing,	1,00
Mrs. John Prichard, tidy,	,25
Mrs. M. A. Beckwith, bead portfolio,	,75
Mrs. Geo. B. Weller, embroidered skirt,	,50
Miss Helen A. Adams, painting,	1,00
Miss L. W. Damon, wax flowers,	,50
Mrs. A. Brooks, cone frame and painting,	,50
Miss S. Maria Garfield, fancy suspenders,	,50
Mrs. S. E. Howe, cone basket and cushion,	,25
Mrs. E. W. Hinds, satchel and hose,	,75
Miss Sarah P. Sawyer, paper flowers,	,25
Miss E. Young, embroidery, rug and bed quilt,	1,25
Mrs. Tamer Sheldon, four pairs mittens,	,37
Mrs. Isaac B. Woodward, homespun yarn,	,50
Mrs. Lucy A. Goodrich, hair work,	1,00
Mrs. Wm. Barnes, silk bed quilt,	,50
I. T. Fitch, Sterling, baby jumper,	,25

Chas. W. Bush, Gardner, braided mat and slippers, $0,75
Mrs. Lucy Goodno, South Gardner, chair and chair seat, ,50
Anna Maynard, Lancaster, knit bed quilt, ,50
Mrs. A. A. Proctor, Ashburnham, rug, ,50
N. V. Emory, Templeton, mat, ,25

For the Committee,

JAMES B. LANE, *Chairman.*

BREAD, BUTTER, CHEESE, &C.

Your Committee on bread, butter, cheese, honey and pickles, report as follows:

LUMP BUTTER.

1st, to Daniel C. Miles, Westminster,	$4,00
2d, to Nathan Caswell, of Fitchburg,	3,00
3d, to George Miles, of Westminster,	2,00
4th, to John Hayward, of Ashby,	1,50
5th, Ezra Kendall, of Sterling,	1,00
M. S. P. Heywood, of Ashby, gratuity,	1,00

JUNE TUB BUTTER.

1st, to S. M. Caswell, of Fitchburg,	3,00
Reuben G. Chesmore, of Westminster, gratuity,	1,00
John Fairbanks, of Lunenburg, gratuity,	1,00

The two last not being June butter did not come under the rule, but their fine quality entitles them to notice.

CHEESE.

1st, to W. M. Mondon, of Barre,	2,00
2d, to George Miles, of Westminster,	1,50
3d, to John Fairbanks, of Lunenburg,	1,00

WHEAT BREAD.

1st, to Mrs. Amos Durant, of Fitchburg, $1,00
2d, to Lizzie Tileston, of Fitchburg, ,50

UNBOLTED WHEAT BREAD.

1st, to Miss Olive Bailey, of Fitchburg, 1,00

BOLTED RYE BREAD.

2d, to Miss Olive Bailey, of Fitchburg, ,50

RYE AND INDIAN BREAD.

1st, to Miss Julia A. Whitcomb, of Fitchburg, 1,00
2d, to Miss Laura Marshall, ,50

PICKLES.

1st, to Mrs. Harriet Stevens, of Westminster, ,75

HONEY IN THE COMB.

1st, to Gardner Merriam, of Leominster, 2,00
2d, to Gardner Merriam, of Leominster, 1,00

Your Committee also found upon the tables several jars of various kinds of jellies in great perfection; although the Society have offered no premiums for jellies, your Committee thought them highly worthy of some notice, and therefore recommend the following gratuities:

Mrs. Harriet T. Burnap, of Fitchburg, apple jelley, ,50
Mrs. Harriet T. Burnap, of Fitchburg, currant jelley, ,50
Mrs. J. F. D. Garfield, of Fitchburg, crab apple jelley, ,50
Mrs. Sam'l Burnap, of Fitchburg, crab apple jelley, ,50

AMASA NORCROSS, *Chairman.*

HORSES.

We would congratulate the Society upon the increased interest in the horse, as shown by the exhibition to-day, of specimens of unusual excellence, of the class submitted to this Committee. Having no place on which to show to any advantage the movement and speed of this noble and beautiful animal, we were obliged to content ourselves as well as we could, by examining his points, and witnessing his motion as he went around such a space as we were able for a short time to command.

The business horse, that is, the horse which is best, on the whole, for all kinds of work, most in demand by the great majority of our people, and of course the one for which premiums are offered by this Society, should possess a good share of the following points and characteristics, the more the better, viz: he should be compact, to insure endurance and hardiness of constitution. Youatt says, "as much strength as possible in a little space." Legs short; fore-legs and hind-legs about equal in length; the withers sharp, thin, and a trifle higher than the hips; the fore-legs well spread at the chest, to give room for the development of the vital organs, perpendicular and straight, knees wide and flat, clean and compact, from knee to fetlock short, free from meat, the back cords large, standing out well from the bone; viewed from the front the legs should be thin, from the side, wide and sinewey; the fetlock rather wide, and thicker in front than behind; pasterns short, neither upright nor very sloping. Mr. Hinds, quoted by Linsley, says "horses having long and sloping pasterns, soon tire." The hoof should be nearly round, open at

the heel, smooth and hard. The shoulders long and oblique, thin and flat at the withers; hips long and wide; croup a little sloping; the quarters full; wide at the stifle; the muscles of the thigh plump and full well down to the hock. The hock should be wide, short, free from lumps, the point long. Below the hock the legs should descend perpendicularly, the hocks no nearer together than the fetlocks. Neck should be of moderate length, tapering towards the head, slightly crowning; on such shaped necks the head is almost always well placed. The head should be small, lean and tapering rapidly from the jowls to the muzzle; the forehead should be long and broad, muzzle thin, lips small and firm, nostrils large and prominent. The eyes wide apart, large and prominent, with a pleasant expression, the lids well open when at rest, the contrary denotes dullness. Ears small, thin, tapering and upright, set well apart. The back short, broad and nearly straight, body deep at the shoulder, the barrel round, back and hips well joined, having no depression just forward of the hips, loins wide and muscular, well ribbed up. The tail should be full, heavy, and carried well up. He should be between fourteen and a-half and fifteen and a-half hands high, rather under than over, and weigh about ten hundred and fifty pounds. Such is the description, mainly from Linsley, of a horse which we should expect to combine the qualities most to be desired in a horse for "all work," and this is nearly the description of a good Morgan.

Though form and characteristics are of primary importance, blood should never be neglected. The farther back the pedigree of both parents can be traced

through good specimens, the greater the probability that the expectations of the breeder will not be disappointed. It is now in proof, says J. S. Skinner, "that this Morgan breed is descended from a horse that was stolen from Gen. de Lancey, importer of Wildair, and there is every reason to believe that though he may not have been thorough-bred, he is well steeped in the best blood of the Anglo-American turf horse."

That "like will beget like" is commonly admitted to be true, but if the male and female parents are very unlike each other, the offspring would probably be unlike either. It is admitted that the chances that the good, and the danger that the bad qualities of an ancestor, will be inherited by any descendant, will depend upon the number of degrees he is removed from that ancestor, unless his ancestors of the opposite sex have exhibited the same qualities. When the ancestors upon both sides for several generations have been alike in all their important features, then "like will beget like," though there will still be great variety in the degrees of excellence even then. Prof. Cline of London, as quoted by Skinner, says, "When the male is much larger than the female parent, the offspring is generally of an imperfect form. The proper method of improving the form of animals consists in selecting a well-formed female, proportionably larger than the male. The improvement depends upon this principle; that the power of the female to supply her offspring with nourishment is in proportion to her size, and to the power of nourishing herself from the excellence of her own constitution. The size of the fœtus is generally in proportion to that of the male parent, and therefore when the female parent

is disproportionately small, the quantity of nourishment is deficient, and her offspring has all the dispropotions of a starveling. But when a female, from her size and good constitution, is more than adequate to the nourishment of a fœtus of a male smaller than herself, the growth must be proportionably greater. The large female has also a greater quantity of milk, and her offspring is more abundantly supplied with nourishment after birth."

Youatt says, "It may perhaps be justly affirmed that there is more difficulty in selecting a good mare to breed from than a good horse. Her carcase should be long, in order to give room for the growth of the fœtus; and yet with this there should be compactness of form and shortness of leg."

Linsley, in his prize essay, says "the stallion should be selected partly with reference to the form and characteristics of the mare, and he should possess in a high degree those qualities in which the mare is most deficient. *In all cases* he should be compact and possessed of a vigorous constitution, have a bold, resolute style of action, high spirit, and a great deal of that nervous or vital energy which gives life to the whole."

Again Linsley says, "All experience shows that the horse of medium size is far the most capable of performing great feats upon either the turf or road in carrying weight at *long distances.* The Arabian, universally admitted to possess astonishing powers of endurance under light weight at high speed, is rarely fifteen hands high. Of those horses that have distinguished themselves as trotters, a very large majority of them have been under fifteen and a-half hands high. "Fanny

Jenks," who trotted one hundred miles in nine hours forty-two minutes, was only fourteen and one-half hands high, and weighed only 935 lbs. Tom Thumb, who performed one hundred miles upon Sunbury common, England, in ten hours seven minutes, in February, 1829, was only fourteen and one-half hands high, and his driver and sulky weighed 250 lbs.; and we think more instances can be adduced of great feats at long distances, performed by horses under fifteen than over sixteen hands high."

The great improvement of the breeds of horses in England, which took place many years ago, is said to have arisen from crossing with those diminutive stallions, the Barbs and Arbians.

We believe it to be a fixed and unyielding law of animal life, that in medium size shall be found the greatest activity, the best constitutions, the greatest power of endurance, and the most courage and vital energy."

STALLIONS.

The Committee award the following premiums:

For stallions four years old and upwards, five were present.

1st, to Augustus S. Shattuck, of Pepperell, for his dark sorrel Morgan, seven years old, fourteen and one-half hands high, $10,00

2d, to J. A. Harwood, of Littleton, for his English Morgan, five years old, fourteen and one-half hands high, 6,00

3d, to Wm. M. Pride, of Fitchburg, for his Black Hawk, ten years old, 4,00

THREE-YEAR-OLDS.

For three-year-olds, none were entered in season to comply with the rules. Premiums under this head not awarded.

TWO-YEAR-OLDS.

3d, to W. L. Brown, of Lunenburg, for his Hambletonian, $2,00

One entered by Eli Clark, of Hubbardston, did not come within the rules. The first and second premiums for two-year-olds are not awarded.

For the Committee,

T. R. BOUTELLE, *Chairman.*

MARES AND SUCKING COLTS.

The Committee on breeding mares and sucking colts, report as follows:

BREEDING MARES.

1st, to Joel Haywood, of Ashby,	$6,00
2d, to Reuben G. Chesmore, of Westminster,	4,00
3d, to Ohio Whitney, of Ashburnham,	2,00

SUCKING COLTS.

1st, to Ohio Whitney, of Ashburnham,	3,00
2d, to Gardner Merriam, of Leominster,	2,00
3d, to Edmund Houghton, of Lunenburg,	1,00

The Committee recommend the following gratuities:

MARES.

E. C. Farwell, of Fitchburg,	1,00
Gardner Merriam, of Leominster,	1,00

COLTS.

Joel Haywood, of Ashby, $0,75
J. A. Goodfellow, of Leominster, ,75
E. Bird, of Leominster, ,75

For the Committee,
WM. W. COMEE, *Chairman.*

DRAUGHT HORSES AND MULES.

The Committee award the following premiums:

Martin Clifford, of Fitchburg, best pair draught horses, $6,00
McIntire & Cushing, of Fitchburg, second best pair draught horses, 4,00
Martin Clifford, of Fitchburg, best single draught horse, 5,00
McIntire & Cushing, of Fitchburg, second best single draught horse, 3,00

For the Committee,
C. H. MERRIAM, *Chairman.*

MATCHED AND CARRIAGE HORSES.

The Committee on matched and carriage horses report:

On carriage horses they have made no award, as there were but two animals exhibited in this class, and neither of these were considered by the Committee as coming up to the premium standard. The Society never having offered premiums for carriage horses at any former exhibition, and as it did not appear in the annual announcement for the Fair that any would be given this year, may fully account for the small number presented.

Of *matched* horses, too, there was but a small variety. It is hoped, that, in future, a larger and a better exhibition of these animals will be presented. Horses, matched and single, possessing the requisite properties as carriage horses, are more important to the people, of this part of the country, at least, than horses for any other purpose. The draught horse is indispensable and next in order. The saddle horse, though not wholly obsolete, is comparatively little used in New England. But the "trotter," something that will make a mile in 2:30, is the animal much admired—much praised—and to which the greatest attention is given. We have no wish to criticise the taste of any one with regard to bringing our horses to a high degree of speed, but we seriously ask, are not horses which are best adapted to the carriage, the most valuable? If so, why should not this Society lend its aid to their improvement? Why will not its members—why will not the people within the limits of the Worcester North Agricultural Society use their efforts to this effect? By a little exertion, the exhibition of carriage horses would be one of the most attractive features of our annual Fair. We trust that it may in future be so.

The Committee award the following premiums:

1st, to Ira Carleton & Co., of Fitchburg, $5,00

The second premium offered for that class of horses they have not thought proper to award, but recommend to W. F. Sawyer of Sterling, and Walter Heywood of Fitchburg, each a gratuity of 3,00

For the Committee,

JAMES O. PARKER, *Chairman.*

COLTS.

The Committee on colts award the following premiums:

THREE-YEARS-OLD GELDING.

1st, to I. T. Dunsmore, of Lunenburg, $4,00

TWO-YEARS-OLD GELDING.

1st, to Adonijah Barnes, of Westminster, 4,00

THREE-YEARS-OLD FILLIE.

1st, to James A. Goodfellow, of Leominster, 3,00

TWO-YEARS-OLD FILLIES.

2d, to Wm. H. Mention, of Fitchburg, 3,00
3d, to E. C. Farwell, of Fitchburg, 2,00

YEARLING FILLEY.

1st, to R. G. Chesmore, of Westminster, 3,00

GRATUITIES.

Ira Carleton, & Co., of Fitchburg, for a filley, two-years-old, 1,50
A. B. Wood, of Westminster, for a filley, two-years old, 1,00

For the Committee,

D. C. MILES, *Chairman.*

SHEEP.

The Committee on sheep would report, that specimens from four different flocks were on exhibition, and they all done credit to the families represented. We found a mixture of blood, viz: Costwold, South Down, Leicester and Native. We think this branch of our exhibition better than in some previous years, and we see no reason why it may not continue to improve, and others be

induced to embark in this profitable branch of agriculture, especially while *mutton* and *wool* commands the present high prices; and also in the uncertainty that prevails since the *cattle disease* was brought into the Commonwealth.

Your Committee regretted that written statements were not presented by all of the exhibitors, as every item of information in regard to profit and loss, in this *methodical* and *systematic* age, is desirable and interesting, particularly to the farmer, who of all others is looking for that which is practical, instead of that which is visionary and unreal. We annex to this report a statement from Mr. Joel Hayward, of Ashby, in relation to his flock, which, by the way, we did not consider the first, or even the second in excellence. This gives us an idea of the profit in raising this valuable animal. We believe a practical statement like this, from one of our farmers, has a greater influence among agriculturists than an elaborate report, and we recommend that in future they be strictly required from competitors for your premiums.

The Committee award the following premiums:

FLOCKS.

1st, to N. L. Eaton, of Ashburnham,	$6,00
2d, to James McIntire, of Fitchburg,	4,00
3d, to Humphrey Harris, of Ashburnham,	2,00
Joel Hayward, of Ashby, a gratuity,	2,00

COSSETTS.

1st, to J. C. Davis, of Ashburnham,	2,00
2d, to James McIntire, of Fitchburg,	1,00
3d, to N. L. Eaton, of Ashburnham,	,50
Benj. Safford, of Fitchburg, a gratuity,	,50
Allen B. Wood, of Westminster, a gratuity,	,50

L. H. BRADFORD, *Chairman.*

JOEL HAYWARD'S STATEMENT.

The sheep which are here presented for the Society's premium, are a part of my flock of twenty six, all owned and kept by me the past year. The flock is composed of a mixture of Blood, viz: Leicester, Costwold and Native. They have reared the past season thirty lambs, which were sold for $4,00 per head; they have also sheared 115 lbs. of wool, which we sold for 37½ cents per pound, making in all $163,12.

They are kept in winter upon English hay entirely, until about the 1st of April, (at which time they usually drop their lambs,) they are then fed some roots or oil meal; they are turned to pasture about the 1st of May, as the weather may be, and are seldom taken out until snow comes.

SWINE.

The Committee award the following premiums and gratuities:

BOAR LESS THAN ONE YEAR OLD.

1st, to John B. Fairbanks, of Fitchburg,	$2,00

FAT HOG MORE THAN EIGHT MONTHS OLD.

1st, to A. F. Adams, of Fitchburg,	4,00

FAT PIG LESS THAN EIGHT MONTHS OLD.

1st, to Isaac B. Woodward, of Fitchburg,	3,00
Also for second best fat pig, same age,	2,00

GRATUITIES.

John B. Fairbanks, of Fitchburg, sow pig,	1,00
Wm. G. Wyman, of Fitchburg, two fat pigs,	1,00
Charles Davis, of Fitchburg, fat hog,	2,00
George A. Johnson, of Fitchburg, fat hog,	1,00

For the Committee,

D. H. MERRIAM, *Chairman.*

POULTRY.

At the present time it seems hardly necessary to occupy much space in the annual report with remarks upon poultry. The time was, when the Shanghai fever raged; our journals were filled in discussing the merits or demerits of each favorite kind or breed. Enormous prices were paid; fowls were transported from place to place, and even imported from Europe and Asia. Conventions were called of fowl breeders, dealers, importers, and the whole community at large, who in their eagerness to see the wonderful birds, came together by hundreds and thousands; but this was fancy, not profit. Our Yankee people usually, before entering upon any enterprise, ask, will it pay? In this instance they were carried away by popular excitement, but when they found it an unpaying business, they soon settled back to the old standard, will it pay?

Now the question is, what fowls are the most profitable? The answer is this: those which lay the most eggs, and whose carcass is the most profitable in the market. Some of these appear to be the old Native breed, or crossed with the Cochin-china, White Dorkins, Jersey Blues, &c., which are all yellow-meated fowls, fatten easy, and lay well.

I will say here that I provide my hens with pounded, unburned bone, with different kinds of grain, and dry dirt or ashes to wallow in, and for the past ten years they have never failed to lay in mid-winter. There is usually a short time in the forepart of winter that my hens do not lay, but by this treatment I can start them. I started them in the above manner last January and

they have layed all the time since, with the exception of about one month in mid-summer.

The Committee make the following awards:

DUNG HILL FOWLS.

1st, to Allen, B. Wood, of Westminster,	$2,00
2d, to Frank E. Brown, of Fitchburg,	1,00
3d, to James McIntire, of Fitchburg,	,50

TURKEYS.

1st, to Abel Marshall, of Fitchburg,	2,00
2d, to Albert Stratton, of Leominster,	1,00

GEESE.

1st, to Reuben G. Chesmore, of Westminster,	1,00

DUCKS.

1st, to George M. Dean, of Fitchburg,	1,00

GRATUITIES.

Miss E. L. Brown, of Fitchburg, for eight African bantums,	,50
C. H. Brown, Jr., of Fitchburg, for eight sea-bright bantums,	,50
Edwin Monroe, of Fitchburg, for eight black Spanish bantums,	,25
Edwin Monroe, of Fitchburg, for eight white dorkins,	,75
Alvah Crocker, of Fitchburg, for ten ducks,	,75
E. N. Fessenden, of Fitchburg, for eight ducks,	,50
H. D. Goodridge, of Fitchburg, for lot rabbits,	,25
Laura I. Spooner, of Fitchburg, for lot rabbits,	,25

For the Committee,

LORISTON STOCKWELL, *Chairman.*

EXPERIMENTS WITH MANURES.

IN ACCORDANCE WITH THE REQUIREMENTS OF THE STATE BOARD OF AGRICULTURE.

Directions for performing the experiments given by the Board.

"Select a level piece of land of any convenient size, from twenty square rods up to as many acres or more, which should be as nearly equal in its character and conditions as possible. Divide it into five equal parts, numbering them 1, 2, 3, 4 and 5.

"Divide the manure which it is proposed to apply, and which should be of a uniform character, into four equal parts. At the time of first plowing in the spring, spread evenly one-fourth of the manure upon plot No. 1, and then plow the whole field of an equal depth. Apply another fourth part of the manure to plot No. 2, and then cross plow the whole field to about half the depth of the first plowing. Spread another fourth of the manure upon plot No. 3, and harrow or cultivate the whole field; after which sow or plant the whole evenly, with any crop preferred. Finally, spread the remaining quarter part of the manure upon plot No. 4.

"Observe that by pursuing this course, each of the five lots will receive equally, a deep plowing, a shallow plowing, and a harrowing or cultivating, the only difference in them being that in No. 1 the manure is buried deep, in No. 2 shallow, in No. 3 buried only slightly, but coated with loam, and in No. 4 left exposed upon the surface; while No. 5 gets no manure. The manure is to be spread broadcast and as evenly as possible. The after cultivation should be the same on each of the lots, and the harvest of each should take place at the same time. * * *

"This experiment is to be continued through a rotation of three years, but no manure is to be applied to the second or third crop. The rotation would be preferred if limited to corn, grain and grass, but is optional."

* * * * *

As these experiments are to be continued through a course of three years, no report, except of progress, will be expected until the third year, 1862. Three entries were made in this department, and the competitors, severally, furnished the required statements, of which the following are abstracts.—*Sec.*

ISAAC B. WOODWARD'S STATEMENT.

The lot on which my experiment was tried contains twenty square rods. The soil is rather heavy, being a black loam upon a clay sub-soil, is moist and retentive of manures. The crop of 1859 was potatoes, manured at the rate of about three cords of horse manure to the acre. For the present crop it was first plowed eleven inches deep; manured with one hundred and twenty bushels of green manure of neat stock, thirty bushels to each of the four lots; was planted with corn May 9th, the corn being dropped by hand and covered with a hoe, and was hoed three times, using the cultivator the first and last times, and plowing the second time.

As soon as my corn was planted the wire-worm commenced to destroy it, and what little did come up the cut-worms took at the halves, so that I could not have any experiment this year, but I hope for better success with wheat next year, and grass the year after. When I saw my corn was spoiled, I neglected to keep the synopsis of the weather, required, but think it may be called wet and cold.

ALBERT STRATTON'S STATEMENT.

My lot contains forty-five rods; the soil is rather heavy, moist and retentive of manures. The crop of 1859 was grass, without manure. It was first plowed seven to eight inches deep, two hundred and forty bushels of barn or stable manure applied, and planted with corn May 25th, in rows three and one-half feet one way and three feet the other, with a hand-hoe; was cultivated three times, twice with a horse-hoe and once with a small plow, and followed each time with a hand-hoe; was harvested Oct. 16th, and the whole product of each lot weighed.

No. 1	produced,	125	lbs.	corn and cob,	and	140	lbs.	stover.
" 2	"	200	"	"	"	210	"	"
" 3	"	203	"	"	"	215	"	"
" 4	"	155	"	"	"	165	"	"
" 5	"	60	"	"	"	65	"	"

The weather was as follows, viz:

	First Third.	Middle Third.	Last Third.
May,	dry,	very dry,	moist,
June,	wet,	moist,	moist,
July,	wet,	moist,	wet,
August,	moist,	wet,	moist,
September,	moist,	wet,	wet.

In making this experiment I divided forty-five rods into five lots, nine rods each; plowed, harrowed and applied the manure according to the directions given for each lot; but the season has been rather unfavorable for moist land and the harvest not great, but it will show the effects of manure applied at different depths for the first and succeeding crops, other things being equal.

W. G. WYMAN'S STATEMENT.

My experiment field contains one acre and thirty-two square rods, divided into six equal parts of one-fifth of an acre each. The soil is a heavy loam upon a clay sub-soil; is moist and retentive of manures. The crop of 1859 was grass. No manure has been applied during three years previous to 1860. It was first plowed about seven inches deep; on the 12th of May, after a fine growth of grass had started, which was turned under with a swivel-plow. Five cords of stable manure from a barn cellar, made with horses, cows and hogs, one cord by accurate measure to each lot, 500 lbs. Coe's ground bone, 100 lbs. to each lot, and 250 lbs. Coe's superphosphate of lime, 50 lbs. to each lot was applied, and the field planted, May 23d, with common yellow corn, with a corn planter, in rows three feet three inches apart each way. It was cultivated with a horse-hoe four times each way, and with a hand-hoe twice, and harvested Nos. 2, 3, 4 and 5, October 29th, and Nos. 1 and 6 November 5th, and the whole product of each plot weighed as follows, viz:

No. 1	produced	879	lbs.	sound ears corn,		11	lbs. soft, and	1100 lbs. stover
" 2	"	785	"	"		26	"	1034 "
" 3	"	851	"	"		22	"	1092 "
" 4	"	819	"	"		21	"	954 "
" 5	"	349	"	"		54	"	354 "
" 6	"	859	"	"		00	"	958 "

The weather was as follows, viz:

	First Third.	Middle Third.	Last Third.
May,	dry,	very dry,	moist,
June,	wet,	moist,	wet,
July,	very wet,	wet,	wet,
August,	moist,	wet,	moist,
September,	moist,	wet,	wet.

Having entertained the belief that the thorough intermixture of manure with the soil to the depth to which it is cultivated would prove most beneficial, I added another plot to those required, No. 6, similar in all respects to the others, and applied to it the same kind and quantity of fertelizers, as to the others, spreading one-third of the manure and bone on the grass before the first plowing, one-third after the first and previous to the second or cross plowing, and one-third after the cross plowing before harrowing; the superphosphate of lime I applied to the hills after the corn was planted. This plot took an earlier start than either of the others, and looked better during the early part of the season; then No. 1 gained upon it and took the lead. The result is given above, with the exception that the corn on No. 6 was riper and dryer than on either of the others. All the plots except No. 6 were treated, in all respects, in accordance with the directions given.

FINANCES.

RECEIPTS.

Amount received from the Commonwealth, - -	$600,00
" " Income of the Fund, -	233,32
" " New Members, Admission Fees, &c.	267,45
Total, - - -	$1,100,77

DISBURSEMENTS.

Amount of premiums and gratuities paid out, - -	444,64
Amount of current expenses, &c., for the year, -	298,17
Total, - - -	$742,81
Amount of the permanent fund, November 30, 1860,	4,540,89
Increase of the funds the past year,	440,89

ANALYSIS OF PREMIUMS AND GRATUITIES AWARDED.

Amount awarded for Horses,		$90,75
" "	Sheep,	18,50
" "	Swine,	16,00
" "	Poultry, &c.,	12,25
" "	Indian Corn,	16,75
" "	Wheat,	9,00
" "	Barley, Beans and Grass Seeds,	11,50
" "	Root Crops of all kinds,	23,25
" "	Fruits and Flowers,	93,25
" "	Garden Vegetables, &c.,	25,15
" "	Bread, Butter, Cheese, &c.,	29,50
" "	Gardens and Orchards,	25,00
" "	Plowing and Spading,	27,00
" "	Fancy Articles, Mechanics, &c.,	111,74
Total,		$509,64

Premiums and gratuities were paid to one hundred and sixty-five different persons, and the amounts distributed as follows:

Fitchburg,	$324,64
Leominster,	35,25
Lunenburg,	23,00
Westminster,	21,25
Ashby,	13,50
Ashburnham,	11,50
Littleton,	6,00
Sterling,	4,25
Princeton,	4,00
Lancaster,	,50
Gardner,	,50
Templeton,	,25
Total amount of premiums and gratuities paid,	$444,64

PAST PREMIUMS, &C.

1853.	Amount of premiums offered, - -	$409,50
	Amount of premiums and gratuities awarded,	359,64
	Amount of premiums and gratuities paid, -	354,80
	Amount of the permanent fund, - -	2128,00
1854.	Amount of premiums offered, - -	477,00
	Amount of premiums and gratuities awarded,	434,79
	Amount of premiums and gratuities paid, -	395,23
	Amount of the permanent fund, - -	2800,00
1855.	Amount of premiums offered, - -	639,00
	Amount of premiums and gratuities awarded,	593,97
	Amount of premiums and gratuities paid, -	499,44
	Amount of the permanent fund, - -	3100,00
1856.	Amount of premiums offered, - -	690,75
	Amount of premiums and gratuities awarded,	588,79
	Amount of premiums and gratuities paid, -	549,71
	Amount of the permanent fund, - -	3200,00
1857.	Amount of premiums offered, - -	721,75
	Amount of premiums and gratuities awarded,	599,60
	Amount of premiums and gratuities paid, -	566,73
	Amount of the permanent fund, - -	3550,00
1858.	Amount of premiums offered, - -	857,25
	Amount of premiums and gratuities awarded,	733,08
	Amount of premiums and gratuities paid, -	701,96
	Amount of the permanent fund, - -	3800,00
1859.	Amount of premiums offered, - -	884,75
	Amount of premiums and gratuities awarded,	676,65
	Amount of premiums and gratuities paid, -	613,83
	Amount of the permanent fund, - -	4100,00
1860.	Amount of premiums offered, - -	794,25
	Amount of premiums and gratuities awarded,	509,64
	Amount of premiums and gratuities paid, -	444,64
	Amount of the premanent fund, - -	4540,89

NEW MEMBERS.

ASHBURNHAM.

Eaton, N. L.

FITCHBURG.

Brown, C. H.
Fuller, Hubbard B.
Manning, Elson W.
Nutting, George F.
Twitchell, John M.
White, W. Fred.

LITTLETON.

Harwood, J. A.

LUNENBURG.

Goodrich, Joseph.
Kilburn, Cyrus.

PRINCETON.

Everett, Mandell G.

OFFICERS OF THE SOCIETY FOR 1861.

ELECTED AT THE ANNUAL MEETING, WEDNESDAY, DECEMBER 5, 1860.

President.

THOMAS BILLINGS, of Lunenburg.

Vice-Presidents.

MOSES M. GAGE, of Fitchburg.
EZRA KENDALL, of Sterling.

Secretary.

W. G. WYMAN, of Fitchburg.

Treasurer.

T. C. CALDWELL, of Fitchburg.

Trustees.

OHIO WHITNEY, Jr., of Ashburnham.
JOEL HAYWARD, of Ashby.
S. W. A. STEVENS, of South Gardner.
C. C. FIELD, of Leominster.
WM. B. HOSMER, of Leominster.
CYRUS KILBURN, of Lunenburg.
DANIEL PUTNAM, of Lunenburg.
JOHN BROOKS, Jr., of Princeton.
HENRY BOYLES, of Princeton.
J. T. EVERETT, of Princeton.
N. B. REED, of Princeton.
ANAN STOCKWELL, of Royalston.
M. T. GARDNER, of Shirley.
JAMES O. PARKER, of Shirley.
J. M. SAWYER, of Sterling.
WARREN SIMONDS, of Templeton.
DANIEL C. MILES, of Westminster.
BENJAMIN WYMAN, of Westminster.
A. F. ADAMS, of Fitchburg.
T. R. BOUTELLE, of Fitchburg.
L. H. BRADFORD, of Fitchburg.
JABEZ FISHER, of Fitchburg.
ABEL MARSHALL, of Fitchburg.
J. A. MARSHALL, of Fitchburg.
JOEL PAGE, of Fitchburg.
J. P. PUTNAM, of Fitchburg.
JOSEPH SMITH, of Fitchburg.
EDWIN UPTON, of Fitchburg.
JOSEPH UPTON, of Fitchburg.
I. B. WOODWARD, of Fitchburg.

Member of the Board of Agriculture.

JABEZ FISHER, of Fitchburg.

COMMITTEES AND PREMIUMS

FOR THE

NINTH ANNUAL EXHIBITION,

TO BE HELD AT FITCHBURG,

On Wednesday, September 25th, 1861.

No person will be allowed to become a competitor for any of the Premiums herein offered, unless he shall have made an entry for the same, with the Secretary, within the time prescribed for each class, nor unless he shall also have furnished all required statements relating thereto within the specified time.

For the convenience of those who live at a distance, entries may be made by Mail; and all entries so made must be delivered at some Post Office one day previous to the expiration of the time specified, and must bear proof of having been so delivered either by a Post-mark, or a certificate of registry from the Postmaster.

STOCK.

All entries for premiums under this head, except poultry, must be made on or before the Friday previous to the exhibition, and all stock must be owned by the person who enters it.

All live stock must have been raised by the person entering the same, or owned by him for at least three months next previously.

Each entry of stock for the pens must specify the breed of the animal, if known, and the age.

Fat cattle, working cattle, draught horses and swine must be weighed on the same scale, in Fitchburg, and will be weighed free of expense. The weight of other stock will not be allowed to be given, unless required by the Committees.

BLOOD STOCK.

Committee.—Joel Page, of Fitchburg; Leonard Burrage, of Leominster; John Minot, of Westminster; Asaph Wood, of Gardner; Edward Bacon, of Westminster.

Authentic pedigrees will be required.

Durham Bulls,	1st premium,	$5,00
	2d premium,	3,00
North Devon,	1st premium,	5,00
	2d premium,	3,00
Ayrshire,	1st premium,	5,00
	2d premium,	3,00
Alderney,	1st premium,	5,00
	2d premium,	3,00
Any other breed, pure blood,	1st premium,	5,00
	2d premium,	3,00

GRADE OR NATIVE BULLS.

More than two-years-old,	1st premium,	5,00
	2d premium,	3,00
Yearling,	1st premium,	4,00
	2d premium,	2,00
	3d premium,	1,00
Calves,	1st premium,	4,00
	2d premium,	3,00
	3d premium,	2,00

These may be of any breed, more than four months old.

MILCH KINE.

Committee.—Solon Carter, of Leominster; Daniel Lowe, of Fitchburg; Howard Gates, of Ashby; Thomas Whitney, of Shirley; N. C. Day, of Lunenburg.

Herds of four Cows or Heifers each,	1st premium,	$10,00
	2d premium,	7,00
	3d premium,	4,00

The person receiving these premiums will not be allowed to compete for any other, with the same animals.

The Committees will regard age, quality and quantity of milk, expense of keeping, &c.

Cows,	1st premium,	$5,00
	2d premium,	4,00
	3d premium,	3,00

Heifers, three-years-old,	1st premium,	$5,00
	2d premium,	4,00
	3d premium,	3,00
Heifers, two-years-old,	1st premium,	5,00
	2d premium,	4,00
	3d premium,	3,00

Competitors for premiums on milch cows, and milch heifers, will be required to certify in writing, at the time of entry, to the weight of the milk during the six days commencing with the first Monday in June, and the corrosponding six days in September; and to the manner of keeping, and general management. Cows that calve after the first Monday in June, may be tried at another time.

HEIFERS.

Committee.—Daniel C. Miles, of Westminster; Perley Howe, of Ashburnham; John Davis, of Ashby; E. E. Boyden, of Leominster; Joshua Sawyer, of Templeton.

Intended to be kept for the dairy.

Two-years-old,	1st premium,	$4,00
	2d premium,	3,00
	3d premium,	2,00
Yearlings,	1st premium,	3,00
	2d premium,	2,00
	3d premium,	1,00
Calves, more than four months old,	1st premium,	3,00
	2d premium,	2,00
	3d premium,	1,00
Calves, more than four months old, raised by hand,	1st premium,	3,00
	2d premium,	2,00
	3d premium,	1,00

WORKING OXEN.

Committee.—Abel F. Adams, of Fitchburg; Joseph Upton, of Fitchburg; Josiah Page, of Westminster; John Ramsdell, of Lunenburg; Luke Wellington, of Ashby.

Working Oxen,	1st premium,	$6,00
	2d premium,	5,00
	3d premium,	4,00
	4th premium,	3,00
	5th premium,	2,00

STEERS MORE THAN ONE YEAR OLD.

Committee.—Joel Hayward, of Ashby; J. G. Woodward, of Ashburnham; J. T. Dunsmore, of Lunenburg; Anan Stockwell, of Royalston; Hosea M. Caswell, of Fitchburg.

Three-years-old,	1st premium,	$5,00
	2d premium,	4,00
	3d premium,	3,00

The three-years-old steers will be attached to carts, and tried like the oxen, on the same ground; the cart and load to weigh two thousand pounds.

Two-years-old,	1st premium,	$4,00
	2d premium,	3,00
	3d premium,	2,00
Trained, less than three-years-old,	1st premium,	4,00
	2d premium,	3,00
	3d premium,	2,00

YEARLING STEERS AND STEER CALVES.

Committee.—John M. Harris, of Fitchburg; S. H. Sprague, of Westminster; Josiah Puffer, of Harvard; Levi Burr, of Ashby; James Puffer, of Westminster.

Yearlings,	1st premium,	$3,00
	2d premium,	2,00
	3d premium,	1,00
Calves,	1st premium,	5,00
	2d premium,	3,00
	3d premium,	2,00
	4th premium,	1,00

FAT CATTLE.

Committee.—J. T. Everett, of Princeton; Marshall White, of Westminster; Joseph Davis, of Templeton; David Parker, of Gardner; Abel Derby, of Fitchburg.

The entries of fat cattle must specify the mode of fattening. Committees will regard the expense of feeding.

Oxen,	1st premium,	$8,00
	2d premium,	5,00
	3d premium,	3,00
Cows,	1st premium,	6,00
	2d premium,	3,00
	3d premium,	2,00
Three-years-old Steers or Heifers,	1st premium,	6,00
	2d premium,	4,00

SWINE.

Committee.—J. W. Mansur, of Fitchburg; Levi Jackson, of Westminster; George Hubbard, of Ashby; John Fairbanks, of Lunenburg; W. B. Hosmer, of Leominster.

Boars, more than one year old,	1st premium,	$4,00
	2d premium,	3,00
Boars, less than one year old,	1st premium,	3,00
	2d premium,	2,00
Fat Hogs, more than eight months old,	1st premium,	4,00
	2d premium,	3,00
	3d premium,	2,00
Fat Pigs, less than eight months old,	1st premium,	3,00
	2d premium,	2,00
	3d premium,	1,00
Breeding Sows,	1st premium,	3,00
	2d premium,	2,00
	3d premium,	1,00
Weaned Pigs, not less than four,	1st premium,	3,00
	2d premium,	2,00
	3d premium,	1,00

STALLIONS.

Committee.—James O. Parker, of Shirley; Silas Hale, of Royalston; C. W. Jaquith, of Fitchburg; Wm. L. Brown, of Lunenburg; Francis Buttrick, of Fitchburg.

All persons offering Stallions, five years old and upwards, will be required to exhibit specimens of their stock.

Stallions, five years old and upwards,	1st premium,	$10,00
	2d premium,	6,00
	3d premium,	4,00
Four-years-old Stallions,	1st premium,	4,00
	2d premium,	2,00
Three-years-old Stallions,	1st premium,	4,00
	2d premium,	2,00
Two-years-old Stallions,	1st premium,	4,00
	2d premium,	2,00

MARES AND SUCKING COLTS.

Committee.—Warren Simonds, of Templeton; Ira Carleton, of Fitchburg; F. W. Wright, of Ashby; George Chandler, of Shirley; Washington Nichols, of Gardner.

The mares must be four years old and upwards, accompanied with their colts.

Breeding mares,	1st premium,	-	$6,00
	2d premium,	-	4,00
Colts, less than one year old,	1st premium,	-	3,00
	2d premium,	-	2,00
	3d premium,	-	1,00

DRAUGHT HORSES AND FAMILY HORSES.

Committee.—Ezra Kendall, of Sterling; Daniel Miles, of Westminster; N. B. Reed, of Princeton; Amos Whitney, of Ashburnham; Levi Kendall, of Fitchburg.

These must all be four years old and upwards.

Draught horses, and mules, pairs,	1st premium,	-	$6,00
	2d premium,	-	4,00
Draught horses, single,	1st premium,	-	5,00
	2d premium,	-	3,00
Family horses,	1st premium,	-	5,00
	2d premium,	-	3,00

COLTS.

Committee.—Samuel Osgood, of Sterling; Joel Merriam, Jr., of Westminster; John Hayward, of Ashby; Gilman Day, of Templeton; Harlow Skinner, of Princeton.

Three-years-old Geldings,	1st premium,	-	$4,00
	2d premium,	-	2,00
Three-years-old Fillies,	1st premium,	-	4,00
	2d premium,	-	2,00
Two-years-old Geldings,	1st premium,	-	4,00
	2d premium,	-	2,00
Two-years-old Fillies,	1st premium,	-	4,00
	2d premium,	-	2,00
Yearling Colts,	1st premium,	-	4,00
	2d premium,	-	2,00

SHEEP.

Committee.—Aaron Wood, of Westminster; John Lowe, of Fitchburg; Levi Smith, of Ashby; Gardner Merriam, of Leominster; S. M. Caswell, of Fitchburg.

Flocks, not less than six, owned by one person,	1st premium,	$4,00
	2d premium,	2,00
Cossets,	1st premium,	2,00
	2d premium,	1,00
	3d premium,	,50

POULTRY.

Committee.—L. H. Bradford, of Fitchburg; John W. Hill, of Gardner; Henry A. Willis, of Fitchburg; George Miles, of Westminster; Caleb S. Merriam, of Westminster.

Dung-hill Fowls, not less than six,	1st premium,	$3,00
	2d premium,	2,00
	3d premium,	1,00
Turkeys, not less than six,	1st premium,	3,00
	2d premium,	2,00
	3d premium,	1,00
Geese, not less than six,	1st premium,	2,00
	2d premium,	1,00
Ducks, not less than six,	1st premium,	2,00
	2d premium,	1,00

PLOWING MATCH.

All entries for plowing must be made on or before the Wednesday previous to the exhibition.

No teams or parts of teams will be allowed to compete for more than one of the premiums on plowing.

DOUBLE TEAMS.

Committee.—Alvah Crocker, of Fitchburg; Nathaniel Holden, of Shirley; J. W. Foster, of Ashburnham; Israel Everett, of Princeton; Joseph Foster, of Ashby.

Double Teams,	1st premium,	$7,00
	2d premium,	5,00
	3d premium,	3,00
	4th premium,	1,00

SINGLE TEAMS.

Committee.—John Brooks, Jr., of Princeton; Abel Marshall, of Fitchburg; Antipas Maynard, of Ashburnham; Aretas Raymond, of Westminster; Liberty Wellington, of Ashby.

Single Teams,	1st premium,	$7,00
	2d premium,	5,00
	3d premium,	3,00
	4th premium,	1,00
Minors with Steers,	1st premium,	6,00
	2d premium,	4,00
	3d premium,	2,00

HORSE TEAMS.

Committee.—I. B. Woodward, of Fitchburg; Lemuel Pitts, of Lunenburg; Josiah Sheldon, of Fitchburg; John C. Davis, of Ashburnham; Jesse Foster, of Ashby.

Horses or Mule Teams,	1st premium,	$7,00
	2d premium,	5,00
	3d premium,	3,00
	4th premium,	1,00

SPADING MATCH.

Committee.—D. H. Merriam, of Fitchburg; H. W. Page, of Fitchburg; E. W. Raymond, of Westminster; Gardner Morse, of Leominster; W. O. Brown, of Fitchburg.

Entries may be made any time previous to the day of the show.

For Spading not less than nine inches in depth, one hundred square feet of sward land; due regard being had to time, thoroughness of the pulverization of the soil, and the state in which it is left for the reception of the seed.

1st premium,	$5,00
2d premium,	4,00
3d premium,	3,00
4th premium,	2,00
5th premium,	1,00

CROPS.

All entries for Premiums in this department must be made with the Secretary, on or before June 1st, with the exception of English turnips, which must be entered on or before August 1st. Immediately after these dates the Secretary will transmit to all competitors a copy of the blank form adopted by the Trustees, to correspond with the requirements of the following extracts from the Statute Laws of 1859, viz:

Chap. 232, Sect. 2. "No incorporated Agricultural Society shall award a premium for a field crop, without satisfactory evidence, under oath, presented to its Committee or other officers, that the whole merchantable crop so entered, has been weighed when harvested, if a grass or root crop, and when threshed or husked, if a grain or corn crop."

These forms must be returned to the Secretary on or before Nov. 10th, with each question concerning the crop answered, and the certificates properly signed.

No person will be allowed to compete for more than one Premium, with a crop raised upon the same field, however large, with the same treatment.

Committees should not encourage the *irregular* entry of *accidental* good crops.

GRAIN.

Committee.—H. A. Blood, of Fitchburg; Ohio Whitney, of Ashburnham; S. M. Dole, of Fitchburg; Wilkes Roper, of Princeton; Benson Bigelow, of Westminster; Porter Piper, of Leominster; Wm. Baker of Lunenburg.

The Committee may award gratuities for valuable new varieties of grain.

For the most profitable crops of Corn, Wheat, Rye, Barley and Oats, one acre each; of Cabbages and Beans one-eighth acre each; the product of Corn to be not less than 4320 lbs. on the cob; that of Wheat, Rye, Barley and Oats not less than 1200 lbs. of grain each.

Corn,	1st premium,	$10,00
	2d premium,	7,00
	3d premium,	4,00
	4th premium,	2,00
Wheat,	1st premium,	8,00
	2d premium,	5,00
	3d premium, *Harris on Insects*	
	4th premium,	2,00

Rye,	1st premium,	$3,00
	2d premium,	2,00
Barley,	1st premium,	3,00
	2d premium,	2,00
Oats,	1st premium,	3,00
	2d premium,	2,00
White Beans,	1st premium,	2,00
	2d premium,	1,00
Herds-grass Seeds,	1st premium,	2,00
	2d premium,	1,00
Red-top Seeds,	1st premium,	2,00
	2d premium,	1,00

The Grass Seed, a half-bushel each lot, to be exhibited at the show.

Cabbages,	1st premium,	2,00
	2d premium,	1,00

ROOT CROPS.

Committee.—Cyrus Thurston, of Fitchburg; Abel Marshall, of Fitchburg; Benj. Safford, of Fitchburg; Ward Russell, of Ashburnham; Henry Boyles, of Princeton.

For the most profitable crops of Potatoes, one-half each acre; of Carrots, Onions, Beets and Turnips, one-eighth acre each.

Potatoes, not less than 6000 lbs.,	1st premium,	$4,00
	2d premium,	3,00
Carrots, not less than 5500 lbs.,	1st premium,	4,00
	2d premium,	3,00
Onions, not less than 2000 lbs.,	1st premium,	*Harris on Insects*
	2d premium,	2,00
Sugar Beet,	1st premium,	2,00
	2d premium,	1,00
Mangold Wurtzel,	1st premium,	2,00
	2d premium,	1,00
English Turnips,	1st premium,	*Harris on Insects*
	2d premium,	2,00
Turnips, of any other variety,	1st premium,	*Harris on Insects*
	2d premium,	2,00

FARMS.

Committee.—Thomas Billings, of Lunenburg; Edwin Upton, of Fitchburg; Joseph W. Forbush, of Westminster.

All competitors must make their entries on or before the first day of May. Each farm will be open to the inspection of the Committee during the entire season. A detailed statement of the general management, together with the income and expenses for the year, must be furnished on or before November 10th.

For the best cultivated and managed Farms, - - - -	1st premium, -	$15,00
	2d premium, -	8,00

GARDENS.

Committee.—Alvah Crocker, J. M. Sawtelle, C. A. Emory, of Fitchburg.

No person having received a premium for a vegetable garden shall be allowed to compete for another with the same land within five years, except for a higher one.

Entries must be made on or before June 1st.

Kitchen Gardens, - - -	1st premium, -	$6,00
	2d premium,	*Harris on Insects*
	3d premium, -	2,00
Flower Gardens, - - -	1st premium, .	2,00
	2d premium, -	1,00

EXPERIMENTS.

Committee.—Jabez Fisher, of Fitchburg; J. A. Marshall, of Fitchburg; W. G. Wyman, of Fitchburg.

All entries must be made at least one week before commencing the Experiments.

There will be placed at the disposal of the Committee for the best and most reliable Agricultural Experiments, made in 1861, the sum of $50,00.

TOWN HALL.

No article intended for the Hall will be entitled to a premium, unless it shall have been deposited by one o'clock, P. M., on the Tuesday before the exhibition, from which time the Hall will be occupied by the Committees exclusively, until half-past six o'clock, when it will be opened to the public for the evening. Admission fee, 10 cts; Season tickets, 25 cts.

All articles must have been grown, manufactured or produced by the person entering the same for premium.

A strict compliance with these regulations will be absolutely necessary.

APPLES, PEACHES, PLUMS AND QUINCES.

Committee.—Ephraim Graham, of Lunenburg; James Putnam, of Lunenburg; C. C. Field, of Leominster; Jacob Haskell, of Fitchburg; M. T. Gardner, of Shirley.

APPLES.

For the best and largest exhibitions of named varieties, of three specimens each, - - - - -	1st premium, -	$4,00
	2d premium,	*Harris on Insects*
For twelve varieties, of five specimens each,	1st prem.	*Harris on Insects*
	2d premium, -	2,00
	3d premium, -	1,00
For six varieties of five specimens each,	1st premium, -	2,00
	2d premium, -	1,50
	3d premium, -	1,00
For three varieties of ten specimens each,	1st premium, -	1,50
	2d premium, -	1,00
	3d premium, -	,50
For the best exhibition of any one variety,	1st premium, -	1,50
	2d premium, -	1,00

No person will be allowed to compete for a premium in more than one of the above classes, with the same specimens of fruit.

PEACHES.

For the best collections, - - -		*Harris on Insects*
For the best dishes or baskets, -	1st premium, -	2,00
	2d premium, -	1,00
	3d premium, -	,50

PLUMS.

For the best collections,		$2,00
For the best plates,	1st premium,	1,00
	2d premium,	,50

QUINCES.

For the best dishes or baskets,	1st premium,	1,00
	2d premium,	,50

In addition to the above premiums, there will be placed at the disposal of the Committee for gratuities, 10,00

PEARS AND GRAPES.

Committee.—J. C. Allen, of Leominster; H. F. Cogshall, of Fitchburg; John Smith, of Fitchburg; B. G. Whiting, of Lunenburg; H. C. Hill, of Gardner.

PEARS.

For the best and largest exhibitions of named varieties, of three specimens each,	1st premium,	$4,00
	2d premium,	3,00
For twelve varieties, of five specimens each,	1st premium,	3,00
	2d premium,	2,00
	3d premium,	1,00
For six varieties, of five specimens each,	1st premium,	2,00
	2d premium,	1,50
	3d premium,	1,00
For three varieties, of ten specimens each,	1st premium,	1,50
	2d premium,	1,00
	3d premium,	,50
For the best exhibitions of any one variety,	1st premium,	1,50
	2d premium,	1,00

No person will be allowed to compete for a premium in more than one of the above classes, with the same specimens of fruit.

GRAPES.

For the best displays of Foreign Grapes,	1st premium,	$3,00
	2d premium,	2,00
	3d premium,	1,00

For the best displays of Native Grapes, 1st premium, *Harris on Insects*
2d premium, - $2,00
3d premium, - 1,00

In addition to the above premiums, there will be placed at the disposal of the Committee for gratuities, 10,00

ASSORTED FRUITS AND FLOWERS.

Committee.—Cyrus Kilburn, of Lunenburg; Mrs. Thomas Billings, of Lunenburg; Mrs. M. T. Gardner, of Shirley; Mr. Porter Piper, of Leominster; Mrs. J. A. Marshall, of Fitchburg; Miss Caroline Cushing, of Lunenburg.

FRUIT.

For the best dishes or baskets, - 1st premium, - $2,00
2d premium, - 1,00

FLOWERS.

For best displays of named Plants in pots, 1st premium, - 2,00
2d premium, - 1,00
For the best display of cut Flowers, - 1st premium, - 1,00
2d premium, - ,50

In addition to the above premiums, there will be placed at the disposal of the Committee for gratuities, 5,00

VEGETABLES.

Committee.—C. J. Billings, of Fitchburg; Aaron Wilkins, of Fitchburg; Loriston Stockwell, of Fitchburg; Wm. Wetherbee, of Shirley; Preston Ellis, of Westminster.

Of Squashes, Pumpkins, Cabbages and Celery there should be six specimens in each lot; of Cauliflower, three; of Onions, Beets, Turnips

and Tomatoes, one peck in each lot; of Potatoes, one peck of each variety; of Field Beans, one-half peck, and of Lima Beans, two quarts.

For the best collections of Kitchen Vegetables,	1st premium,	$10,00
	2d premium,	5,00
	3d premium,	3,00
Collections of Potatoes,	1st premium,	2,00
	2d premium,	1,00
	3d premium,	,50
Marrow Squashes,	1st premium,	1,00
	2d premium,	,50
Hubbard Squashes,	1st premium,	1,00
	2d premium,	,50
Crookneck Squashes,	1st premium,	1,00
	2d premium,	,50
Pumpkins,	1st premium,	,75
	2d premium,	,50
Cabbages,	1st premium,	,75
	2d premium,	,50
Cauliflowers,	1st premium,	,75
	2d premium,	,50
Celery,	1st premium,	,75
	2d premium,	,50
Onions,	1st premium,	,75
	2d premium,	,50
Turnip Beets,	1st premium,	,75
	2d premium,	,50
English Turnips,	1st premium,	,50
	2d premium,	,25
Tomatoes,	1st premium,	,50
	2d premium,	,25
Field Beans,	1st premium,	,50
	2d premium,	,25
Lima Beans,	1st premium,	,50
	2d premium,	,25
Seed Corn, in traces,	1st premium,	1,00
	2d premium,	,75
	3d premium,	,50

In addition to the above, there will be allowed for gratuities, 10,00

BREAD, BUTTER, CHEESE, PICKLES AND HONEY.

Committee.—R. R. Safford, of Fitchburg; Daniel Putnam, of Lunenburg; Mrs. L. H. Bradford, of Fitchburg; Mrs. Edwin Upton, of Fitchburg; Mrs. D. C. Miles, of Westminster; Mrs. Levi Kendall, of Fitchburg.

All Bread must have been baked on the Monday previous to the exhibition.

Competitors will be required to furnish a detailed statement in writing of the process of manufacturing Butter, Cheese and Pickles.

Wheat Bread,	1st premium,	$2,00
	2d premium,	1,00
	3d premium,	,50
Unbolted Wheat Bread,		1,00
Bolted Rye Bread,	1st premium,	1,00
	2d premium,	,50
Rye and Indian Bread,	1st premium,	1,50
	2d premium,	1,00
	3d premium,	,50
Lump Butter, not less than 12 lbs.,	1st premium,	4,00
	2d premium,	3,00
	3d premium,	2,00
	4th premium,	1,50
	5th premium,	1,00
June Tub Butter, not less than 25 lbs.,	1st premium,	3,00
	2d premium,	2,00
Cheese, not less than 50 lbs.,	1st premium,	2,00
	2d premium,	1,50
	3d premium,	1,00
Pickles,	1st premium,	,75
	2d premium,	,50
	3d premium,	,25
Virgin Honey in the comb,	1st premium,	2,00
	2d premium,	1,00
	3d premium,	,50

MECHANICS AND MANUFACTURES.

Committee.—Charles Burleigh, of Fitchburg; Ivers Phillips, of Worcester; S. W. A. Stevens, of Gardner; Wm. H. Vose, of Fitchburg; James H. Carter, of Leominster; Ward M. Cotten, of Leominster; Israel Longley, of Shirley; Ohio Whitney, Jr., of Ashburnham; Gardner P. Hawkins, of Fitchburg.

For the best specimens of Mechanic and Manufactured articles there will be placed at the disposal of the Committee, the sum of $100,00

FANCY ARTICLES.

Committee.—W. A. Mandell, of Lunenburg; Jerome Gardner, of Shirley; Mrs. T. R. Boutelle, of Fitchburg; Mrs. D. L. Abercrombie, of Lunenburg; Mrs. Joel Page, of Fitchburg; Mrs. Jabez Fisher, of Fitchburg; Miss Mary Brooks, of Fitchburg.

For the best specimens of Ladies' Useful and Fancy Articles, of their own manufacture, including specimens of nice mending and darning, there will be placed at the disposal of the Committee, the sum of $30,00.

ESSAYS.

Committee.—E. Torrey, Moses Wood, E. F. Bailey, of Fitchburg.

All persons competing for these premiums must file their Essays with the Secretary on or before the 1st of September. Each Essay is to be marked with a motto or design, and accompanied with a sealed envelope containing a corresponding motto or design, and also the name of the author.

The envelopes of the successful competitors will be opened on the day of the exhibition, immediately upon the announcement of the awards.

For the best Essays on some practical subject connected with Agriculture, deemed worthy of publication in the Society's "Transactions."	-	1st premium,	- $10,00
		2d premium,	- 5,00

ORCHARDS AND VINEYARDS.

Committee.—T. R. Boutelle, N. S. Boutelle, Oliver Kendall, of Fitchburg.

Competitors must make their entries on or before the 1st day of June, and furnish a detailed statement of the history and management, on or before November 10th.

PEARS.

For the best Orchards of not less than fifty trees, all having been set out after January 1st, 1856,	1st premium, -	$25,00
	2d premium, -	15,00

GRAPES.

For the best Plantations of Native Grapes, containing not less than twenty-five vines,	1st premium, -	10,00
	2d premium, -	5,00

PROSPECTIVE.

EXPERIMENTS.

Committee.—Jabez Fisher, of Fitchburg; Thos. Billings, of Fitchburg; Lemuel Pitts, of Lunenburg.

In accordance with the requirements of the Board of Agriculture there will be paid for the most thorough, exact and reliable experiments upon the proper depth of applying manures, five premiums, as follows:

1st premium, -	$25,00
2d premium, -	20,00
3d premium, -	15,00
4th premium, -	10,00
5th premium, -	5,00

A circular containing full directions for the performance of these experiments, which are to be continued through a rotation of three years —the premiums to be paid in the fall of 1862—will be supplied to all persons wishing to compete, on application to the Secretary.

FOREST TREES.

All persons competing for the following premiums, must make their entries on or before the 1st day of June, in the year in which the premiums are to be awarded, and furnish a detailed statement of the whole management from the time of setting out, on or before November 10th of the same year.

For the best Plantations of any kind of Forest trees, suitable for fuel or timber, raised from the seed, not less than five hundred in number, which shall be in the most flourishing condition in the fall of 1863,	1st premium,	$25,00
	2d premium,	15,00
	3d premium,	10,00

GRAPES.

For the best Plantations of Native Grapes, containing not less than fifty vines, all having been set after Jan. 1, 1861, to be awarded in 1864,	1st premium,	20,00
	2d premium,	10,00

APPLES.

For the best Orchards of not less than fifty trees, all having been set after Jan. 1, 1861, to be awarded in 1865,	1st premium,	25,00
	2d premium,	10,00

PEARS.

For the best Orchards of not less than fifty trees, all having been set after Jan. 1, 1861, to be awarded in 1866,	1st premium,	25,00
	2d premium,	10,00

RULES.

All teams entered for plowing and for draught, must have been owned by the person entering same for at least three months next previous, and the team must be driven, and the plow managed by him or by some one usually in his employ.

Any person competing for any premium who shall serve on the Committee having charge of the department in which he competes, shall retire from the Committee while his own competition is in question.

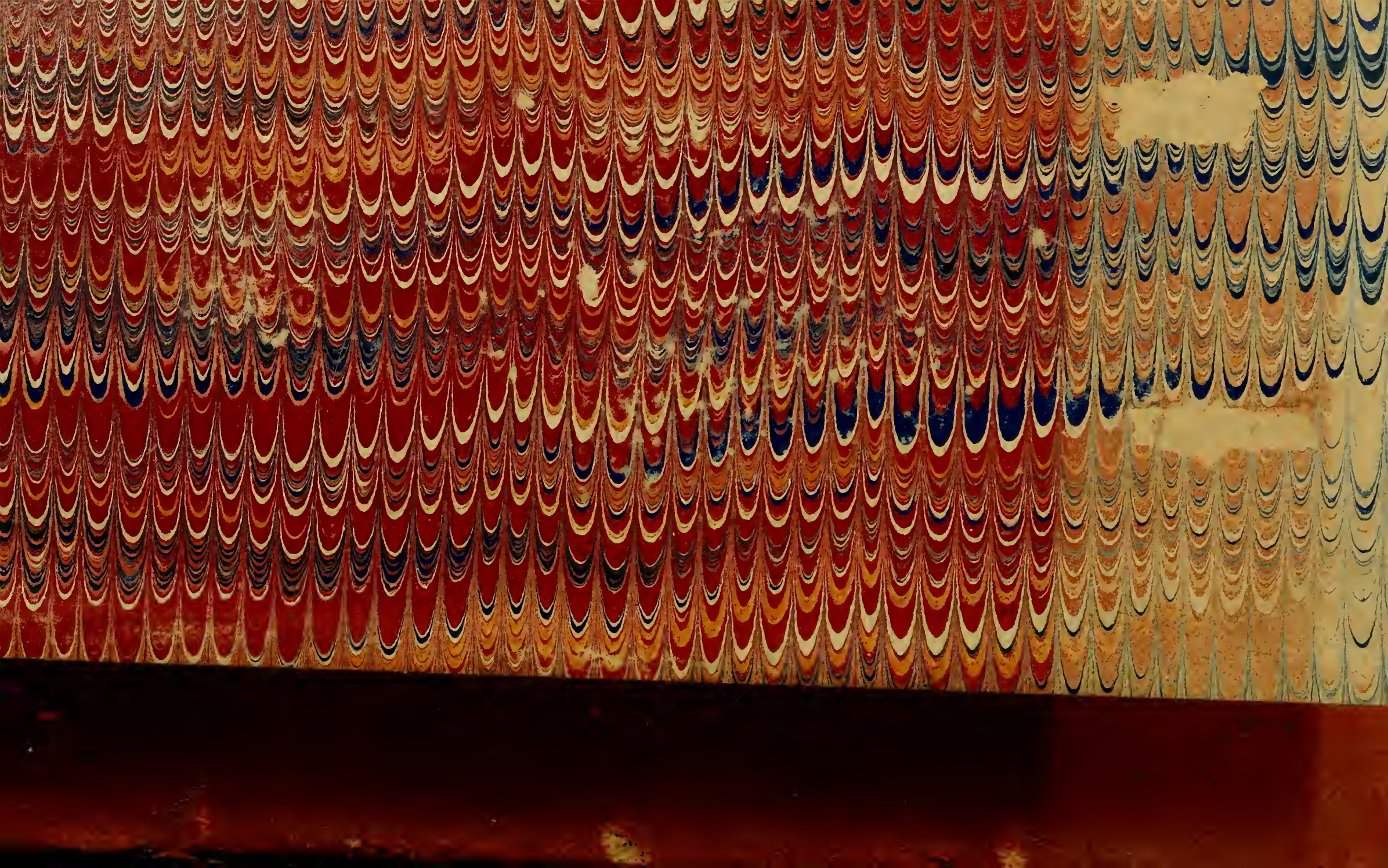
The several Committees will not consider themselves bound by the terms of the above offers, to award a Premium for anything which they shall deem inferior.

Any person to whom a Premium shall have been awarded in consequence of any deception or misrepresentation used by him, shall not only forfeit such premium, but afterward be incapable of competing for the Society's Premium.

All persons (ladies and minors excepted), not members of the Society, to whom may be awarded a Premium or Premiums amounting to $5,00 or upwards, shall receive a certificate of membership for $5,00, and the balance in cash. If the amount shall be less than $5,00, a deduction of fifty per cent. will be made, unless the individual chooses to make the amount up to that sum, and receive a certificate of membership.

All Premiums not demanded on or before November 30th, will revert to the Society.

An extract from the General Laws of Massachusetts, passed in 1859.

Chap. 232, Sect. 1. "No animal or article, for which a premium shall have been awarded to the owner, by any incorporated Agricultural Society, receiving the bounty of the State, shall be considered a subject for any further premium of the same or any other such incorporated Society, except for qulities different from those for which the former premium was awarded, or for a higher premium; and no animal or article in any year offered for a premium, at any such Society, shall be offered for a premium at any other such Society in the same year; but nothing in this Act shall affect, restrain, or limit a competitor for premiums offered by the State Board of Agriculture, or the Massachusetts Society for the promotion of Agriculture, to be awarded within the incorporated County Agricultural Societies; but such premiums shall be subject to the rules and regulations prescribed by said Board, or by the Trustees of said Massachusestts Society."

Sect. 5. "A Society which shall neglect, in any year, to comply with the several general laws concerning Agricultural Societies, or with such regulations of the Board of Agriculture, shall not be entitled to the bounty of the State the year next succeeding."